Georgia
00-80013B
Vol. 1

FINAL REPORT

FEASIBITY STUDY

Establishment and Operation of Internet-Based Communications Centers in Georgia

USTDA CONTRACT GH 0813294

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January 12, 2001

This report was funded by the U.S. Trade and Development Agency (TDA), an export promotion agency of the United States Government. The opinions, findings, conclusions, or recommendations expressed in this document are those of the authors(s) and do not necessarily represent the official position or policies of TDA.

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I. EXECUTIVE SUMMARY

"Wherever we had been in Russia ... magical name of Georgia came up constantly. Indeed, we began to believe that most Russians hope that if they live very good and virtuous lives, they will not go to heaven but to Georgia when they die."

John Steinbeck
"A Russian Journal"
1946

a) Introduction

The idyllic Georgia that John Steinbeck and countless others grew to love no longer exists. After seventy years of Communist rule and ten years of "democratic reform", Georgia is now racked by economic hardship of unusual proportion, rampant corruption and overwhelming despair. While the mid-nineties brought fleeting hope and a degree of short-lived prosperity, 2001 finds a virtually devastated population. As a result of a confluence of global and regional factors- - as well as systematic corruption- - the government is often unable to meet the basic economic and social needs of its citizens.

Significantly, Russia's imposition in December, 2000 of visa requirements for Georgian citizens wishing to enter the Russian Federation- -in conjunction with Moscow's suspension (and quixotic renewal) of natural gas supplies to Georgia- - presents additional difficulties for an already precarious Georgian government. Does Georgia adhere to its pro- Western orientation and stated commitment to implement critical economic and democratic reforms? Or, does Georgia make difficult concessions to Moscow and, in fact, cede part of its sovereignty- - including withdrawing its insistence on the closure of Russian military bases on Georgian soil. Such concessions might result in additional Russian supplies of electricity and gas, a promise that control of Abkhazia would be restored and/or a range of assurances that Russia would not seek a stronger "affiliation" with, and influence in, Georgia. While pro-Western reformers in the Georgian government seek to

resolve these difficult questions these very individuals, among many other leaders, have been unable to find workable solutions to Georgia's overwhelming economic, social and political problems.

What has not changed in Georgia in the more than fifty years since John Steinbeck made his poignant observation is the resiliency of the Georgian people, their respect for education and willingness to do anything for their children. Education is everything. Nothing means more to a Georgian family than the education of their sons and daughters. Georgians inherently understand - - better than anyone and notwithstanding relative income levels-- that education will bring provide a child with a "better" life— -no matter how the term "better" may be defined.

With per child funding for education the lowest in the world, the Ministry of Education, nevertheless, manages to provide basic and sound educational programs to hundreds of thousands of children throughout the country. With a Ministry comprised of committed professional educators, Minister Kartozia and Deputy Minister Sanadze are at the forefront of those officials in Georgia who truly desire a better life for the country's young people. They perform their duties selflessly and without fanfare. However, despite the Ministry's Herculean efforts, there is minimal central and regional support and meager financing for school programs, mush lees, for new initiatives. This has resulted in an elementary and secondary school system that is often incapable of providing even the basic essentials of a "western" style education— - including salaried (and paid) teachers and heated classrooms.

Accessible school libraries, textbooks and school supplies are in very short supply while computers and Internet access are, literally, non-existent. Classes often take place without heat or electricity. Many Georgian families, more or less willingly, provide "supplemental" financial assistance to their child's schooling by making direct cash payments to the school the child attends. The ostensibly "free" Georgian public school system would be unable to provide even the minimal basic services it presently offers, including paying teachers' salaries, without such direct cash contributions from the population it serves.

It is within this context that the Feasibility Study for the proposed "Establishment and Operation of Internet-based Communications Centers in Georgia" ("the Project") was undertaken in April, 2000 by i-world.com.inc., ("i-world" or the "Company"), a New York Internet and telecommunications company.

As set forth below, the Project was intended to be a for-profit, commercial business venture that would provide Georgians reliable and cost-effective access to Internet and other Internet-based telecommunications facilities through the provision of Internet-ready computers in elementary and secondary schools. Schoolchildren would be able to utilize these facilities, free of charge, while fees would be charged to community residents to access the communications centers' wide array of Internet and telecommunications services and computer education courses.

b) The Feasibility Study

In January, 2000, in response to a request from Georgian President Eduard Shevardnadze and Georgian Ambassador to the United States, the Hon. Tedo Japaridze, i-world was formed by its executive management and shareholders. i-world subsequently submitted a proposal for funding to the United States Trade and Development Agency ("USTDA") for the partial financing of a Feasibility Study. The purpose of the proposed Feasibility Study was to ascertain whether a commercial enterprise intended, inter alia, to provide computers and Internet access, free of charge, to Georgian schoolchildren could be undertaken as a component of a larger and for-profit Internet/telecommunications venture in Georgia. It is within this framework that i-world was retained by the Ministry of Education of Georgia to evaluate the possibility of the construction and operation of a series of Internet-based Communications Centers situated in Georgian elementary and secondary schools.

i-world's Feasibility Study was intended to assist the Ministry in making key financial and strategic decisions concerning the commercial viability of building and operating these fee-based communications centers in conjunction with providing free Internet-ready computers (and related computer service and English language instructional programs) to Georgia's schoolchildren. Specifically, the Feasibility Study was intended to ascertain, among other matters, consumer

demand, telecommunications infrastructure support, levels of Georgian (and other) governmental and commercial support, potential utilization by the population, potential Project financing and consumer payment options. Based on the phased results of the Feasibility Study, i-world would also ascertain whether a combination of a) shareholder/investor equity; and b) private/public financing would be available in order that a commercially viable enterprise could be initiated.

In close conjunction with the Georgian Ministry of Education- -and pursuant to financing from USTDA — -i-world conducted a comprehensive Feasibility Study during the eight month period of April, 2000 through January, 2001, including a comprehensive, country-wide Market Survey of over 5,900 Georgian households. The objective of the Feasibility Study was to determine whether the "Internet in the Schools" program could be achieved as a component of a more expansive and for-profit, commercial enterprise. i-world conducted, among other things, a technical, economic, marketing and regulatory assessment of the telecommunications and Internet sectors, Project financial projections as well as a comprehensive projection of potential availability of equity and/or debt financing—from both private and public sources.

b) Summary of Conclusions and Recommendations

The i-world Final Report discusses the following findings in greater detail below:

1) The Market Survey revealed that while computer penetration is approximately 8%, throughout Georgia, Internet access is approximately 5%.

2) Prevailing demand, however, - - within all sectors of the Georgian population - -is very high for Internet-ready computers, cost-effective Internet access and computer/English language instructional programs;

3) The Georgian population does not presently have the necessary "disposable" (or any other income) to utilize the fee-based Internet and telecommunications services contemplated by i-world's Communications Centers. It would be entirely

unrealistic to assume that the population would be able to make such expenditures in the present Georgian economic environment--particularly in an amount sufficient to offset the Company's fixed and variable operating costs and yield even minimal profit to i-world's investors. (See, for example, The Economist, "Georgia Country Survey" dated August 2000 and attached hereto as Exhibit A and the US BISNIS Review of the Georgian IT sector included as Exhibit F.)

4) The Georgian population— -urban as well as rurally situated-- is strongly (95%) in favor of the provision of Internet-ready computers to Georgian schoolchildren. Equally, 92% of the sampled population- -5,934 households throughout the country— -stated that Internet- ready computers and affordable access to the Internet were critical to the country's economic, social and political development. (See also Exhibit B, "1999 Statistical Yearbook of Georgia" published by the State Department for Statistics of Georgia, which details the most recent official statistics on Georgian telecommunications and educational facilities.)

5) There are no regulatory issues that would delay the implementation of the proposed Project. i-world's Georgian telecom/ISP partner, SANET, presently holds all of the necessary Georgian licenses to provide ISP and telecommunications services;

6) The existing, basically Soviet-times telecommunications infrastructure is highly unreliable and often incapable of providing basic telecommunications services. The existing infrastructure would, however, be able to handle the incremental demand of providing Internet access to i-world's proposed Communications Centers in the country's elementary and secondary schools. Dial-up capability and/or leased lines are sufficiently available for the Project's limited purposes;

7) The market survey demonstrated a significant demand for computer education and English language instruction in the schools;

8) While the Georgian government is completely supportive of i-world and the Ministry of Education's objectives, the government will not provide any form of financial or in-kind assistance to implement the Project;

9) The seriousness of the current energy crisis, among other factors, effectively precludes the operation of the Communications Centers on a for-profit basis since electricity can only be "assured" for a few hours each day.

10) The Ministry of Education provided complete cooperation to i-world and is committed to the Project's implementation. Total transparency prevailed at all times;

11) The Project received the enthusiastic endorsement and ongoing assistance of the U.S. Embassy in Tbilisi in addition to the support and guidance of the Georgian Embassy in the United States, particularly through the efforts of Georgian Ambassador to the United States, the Hon. Tedo Japardize.

12) Based on the overall results of the Feasibility Study and, particularly, the results of i-world's Market Survey, i-world's shareholders have determined that a) it would not be feasible to make an equity investment in the Project; and b) the Project does not, at the present time, constitute the basis of a viable commercial enterprise.

As set forth below, i-world is recommending to the Georgian Ministry of Education and USTDA that, in light of prevailing economic circumstances and other factors, it would be inadvisable for i-world and its shareholders to proceed as originally intended, that is, to undertake the project as a commercial and for-profit undertaking. i-world is also informing the Ministry of Education and USTDA that, in order to carry out this Project, i-world management and shareholders have formed a new non governmental organization ("NGO"), The Transcaucasus Foundation, Inc. (the "Foundation"), a not-for-profit and Internal Revenue Service ("IRS") tax-exempt, 501(C)(3) corporation.

The Foundation's Board of Advisors will be headed by General John Shalikashvili (ret.) and the Chairman of its Board of Directors will be former United States Congressman Jack Buechner. The Foundation will feature a highly qualified executive management team and a Board of Advisors comprised of prominent American businessmen, educators and former political office holders.

The Foundation will be the vehicle that executes i-world's Internet program in Georgia and, subsequently, initiates activities in Azerbaijan and other countries. The Foundation's objectives, primarily the Georgian and Azeri "Internet in the Schools" programs, will be implemented by U.S. and local management with the close participation of each country's respective Ministry of Education and private sector Internet service and telecommunications providers and through a combination of governmental, commercial and foundation financing sources.

i-world anticipates that the Foundation will proceed as follows and will commence its activities in Georgia immediately upon the conclusion of its initial funding requirements:

- A U.S.-led management team will have the responsibility of implementing policy initiatives set by the Foundation's Board of Directors and will oversee all expenditures. The inclusion of local management is essential and will reflect Georgians' experience in the Internet and telecommunications industries. (For example, there are a number of very talented individuals in the Georgian Internet sector[1] and their involvement will be actively enlisted.)

- The Foundation's expectations and definitions of "success" will be realistic, relatively modest and relevant to the uniquely difficult circumstances in which Georgia finds itself today. Obviously, to successfully implement any effort in Georgia and elsewhere in the Caucasus is complicated and will involve the resolution of numerous inter-related

[1] As a single example, the management of SANET, Georgia's primary Internet Service Provider- -particularly George Kashia its Managing Director- - is comprised of unique entrepreneurial and management talent.

political, economic and social factors. i-world anticipates that there will be very real limitations on what the Foundation is able to accomplish- - notwithstanding good intentions and level of available financing.

As noted above, i-world has received the complete support of the Georgian government, particularly President Shevardnadze (and the President's Office) as well as the Ministries of Education and Foreign Affairs. The Georgian Embassy in the United States, headed by Ambassador Japaridze, has been instrumental in providing on-going assistance and support as has Georgian Foreign Minister Meningarishvili. The Georgian Ambassadors to Germany and The European Union, respectively, Konstantin Gabashvili and Konstantin Zaldanatisvili, have also offered their enthusiastic support and assistance in the proposed implementation of the Foundation's objectives.

The management and shareholders of i-world are particularly appreciative of the efforts of Minister of Education Alexandre Kartozia and Deputy Minister Vladimir Sanadze. Minister Kartozia and Deputy Minister Sanadze provided i-world the Ministry's total and unwavering support. Their dedication, under the extremely difficult circumstances that this Ministry finds itself today, should be recognized and commended. i-world has not encountered any difficulties, whatsoever, in maintaining total transparency.

II. DIGITAL DIVIDE -EASTERN EUROPE AND GEORGIA

While Internet usage is expanding, exponentially, in the United States, Western Europe, Japan and throughout Asia computer and Internet access is still very limited in most countries. This is particularly true in Eastern Europe, including Georgia, due to the cost of desk and laptop computers, antiquated telecommunications infrastructures and, primarily, the populations' lack of income to spend on relatively steep (and recurring) Internet access and telecommunications charges.

In the United States, Europe, Japan and elsewhere around the world, the concern over the "digital divide" has translated into public policy. In the emerging information society more and more people -- in private life and at work -- depend on modern communications facilities. To be able to communicate and interact whether by telephone, fax, e-mail or electronic media is has become a crucial and decisive factor for every citizen and business. For example, the policy of the European Union ("EU") - - which Georgia seeks to join in 1996- - towards the information society has from the outset taken into account the need to avoid a "two-tier-society", divided between those who have access to the new possibilities and are comfortable using them and those who are excluded from fully enjoying their benefits.

The European Commission stated the issue as follows in a 1997 report:

"In order to reap both the economic and social benefits of technological progress and to improve people's quality of life, the Information Society must be based on the principles of equal opportunities, participation and integration of all. This can only happen if everybody has access to at least a basic set of the new services and applications offered by the Information Society."

As the law of the EU has evolved, it has come to incorporate and delineate the meaning of the concept of "universal service". As now defined in EU Directives, the universal service obligation requires Member States to ensure that all persons "reasonably requesting" can obtain a connection to the fixed public telephone network at an

affordable price. The universal service obligation takes on special importance in the age of liberalization, i.e., privatization and competition. The EU and its various committees "have all recognized that liberalization goes hand in hand with parallel action to create a harmonized regulatory framework, which secures the delivery of universal service." Yet the EU, to date, has taken little action to enforce the obligation. The first monitoring report found a gradual but continuing improvement in service levels, price and quality. But the EU has not given the attention to the digital divide that has been seen, for example, in the United States, where for the years 1998-2000, the federal government has issued reports "expressing concern", seeking policy solutions and actually financing solutions— -in the tens of millions of dollars annually-- that address the digital divide.

As Georgia and other countries of Central Europe move towards membership in the European Union, they will each be required to commit to universal service. Those countries seeking entry to the EU have begun (and in many cases completed) the process of incorporating the obligation in their national laws, but to date, the details of implementing the policy have not been defined by the EU. Georgia, of course, has more compelling problems and has not begun to seriously address these issues other than the appointment of various Parliamentary and Presidential committees.

Defining Universal Service

The Internet offers the promise of an information society in which virtually unlimited quantities of information are globally available; in which any individual can be an electronic Guttenberg, publishing as well as reading; in which the patterns of civil society are redrawn and borders are rendered meaningless as people build virtual communities for work, learning and socializing across traditional boundaries of time and place. Realizing this vision of a global, decentralized, user-controlled medium poses many challenges, but among the most fundamental of these is the challenge of affordable access, in countries such as Georgia.

If the Internet remains available to only a very few— -as presently the case in Georgia-- its democratizing potential will never be achieved and its economic impact will be limited as well. Policymakers, both at the national and international levels, together with service providers and other entities

operating the Internet as well as non-governmental organizations representing the public interest have a shared obligation to seek ways to achieve the widespread use of the Internet. (See generally, Exhibit C, United Nations Secretary General Kofi Anan's Statement on "Globalization and Governance.")

This is a challenge faced around the world. While some progress is being made in Georgia, through, for example, the efforts of the Soros and IREX projects, as those non-profits strive to expand Internet connectivity. However, the Internet is enormously far from achieving its potential reach and impact in Georgia and i-world believes that the "digital divide" is actually growing, exponentially, in Georgia as the worldwide pace of change accelerates. Those Georgians (and others) who support the Internet's power as a medium uniquely suited to building open societies must take real action to make Internet access in Georgia widely available and affordable.

Access to the Internet in Georgia, for all the country's other unique problems, has been for most of its short history largely dependent upon more traditional communications services, specifically antiquated telephone service, prevailing annual energy crises and, most importantly, lack of spending power. Consequently, for most Georgians, access to the Internet can be no better than access to basic telecommunications services, availability of electricity and a job with a decent and reliable salary. Thus, the widening gap between Georgian "haves" and Georgian "have-nots" overshadows consideration of Internet policy as it does so many other issues.

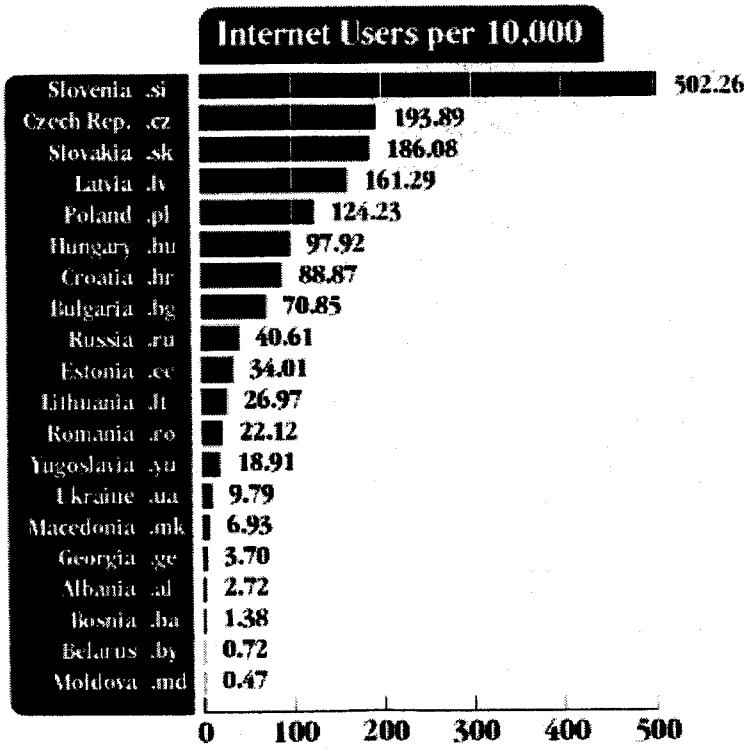
In terms of Internet access, there are two main components of potential change, one largely political in nature and one largely technological. Politically, the concept of universal service has become a widely shared goal of national and international telecommunications policy. For example, numerous committees and agencies have been established in Georgia to "consider" the problem and "coordinate" Georgian Internet policies. The latest committee in Georgia was established in the summer of 2000 by Presidential decree and is comprised of governmental and private sector representatives. The Committee has no professional staff, offices or funding of any kind.

Technologically, ongoing rapid developments in alternatives to wireline dial-up access offer the potential in Georgia of spanning geographic barriers and opening up access to both basic telecommunications services and the Internet at reduced costs. Without significant funding, however, these alternatives, in Georgia and elsewhere, will remain just that - -interesting alternatives.

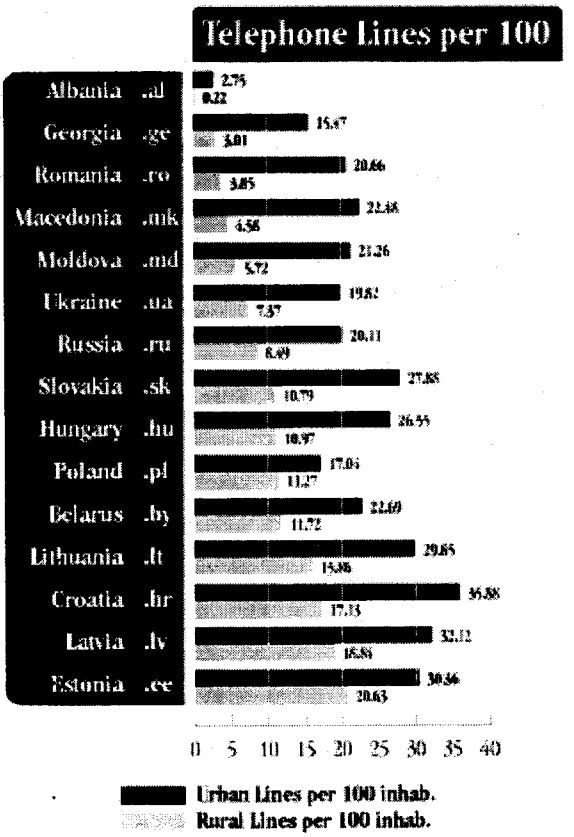
Certain conclusions can be drawn about Internet access in Central and Eastern Europe and, particularly, for Georgia:

• The Internet is available, used and growing in all countries of the region, but it is not widespread. Central Europe lags behind Western Europe in all measures of computer and Internet access and usage. Georgia ranks amongst the lowest in terms of computer and Internet penetration.

The following Charts from the International Telecommunications Union ("ITU"), dated July, 2000, provide the most recent and relatively reliable data on Internet penetration in the region. As forth in greater below, the i-world Georgian Market Survey indicated that Georgian Internet access is higher than the ITU reported.



Source: ITU, World Telecommunication Development Report: Universal Access (1998).



Source: ITU, World Telecommunication Development Report: Universal Access (1998).

Internet Access in Eastern Europe (1996 data)

	Population in Millions	GDP per Capita in $	Users per 10,000	Tele. lines per 100	PCs per 100	New Hosts in 1,000s	Internet Host CAGR%
Russia .ru	147.74	2429	40.61	17.54	2.37	36.2	164.8
Ukraine .ua	51.09	70	9.79	18.09	0.56	4.2	173.0
Poland .pl	38.64	3055	124.23	16.91	3.62	29.8	129.0
Romania .ro	22.61	1573	22.12	13.98	0.53	6.1	349.4
Yugoslavia .yu	10.57	1510	18.91	19.69	.	.	.
Czech Rep. .cz	10.32	4564	193.89	27.31	6.78	19.0	86.9
Belarus .by	10.25	1004	0.72	20.77	.	0.2	1405.9
Hungary .hu	10.21	4271	97.92	26.06	4.41	14.0	89.0
Bulgaria .bg	8.47	1470	70.85	31.26	2.98	2.3	214.5
Georgia .ge	5.41	372	3.70	10.49	.	0.2	271.9
Slovakia .sk	5.37	3230	186.08	23.19	.	4.9	165.4
Croatia .hr	4.50	3786	88.87	30.86	2.09	2.2	88.3
Moldova .md	4.24	392	0.47	14.00	0.26	.	20.0
Lithuania .lt	3.71	1605	26.97	26.78	0.65	1.3	277.7
Albania .al	3.67	680	2.72	1.74	.	.	125.7
Bosnia .ba	3.63	.	1.38	8.98	.	.	.
Latvia .lv	2.48	1768	161.29	29.81	0.79	4.5	337.5
Macedonia .mk	2.16	1419	6.93	16.98	.	0.1	114.4
Slovenia .si	1.99	9431	502.26	33.33	4.78	8.2	145.9

Source: ITU, World Telecommunication Development Report: Universal Access (1998).
CAGR=Compound Annual Growth Rate

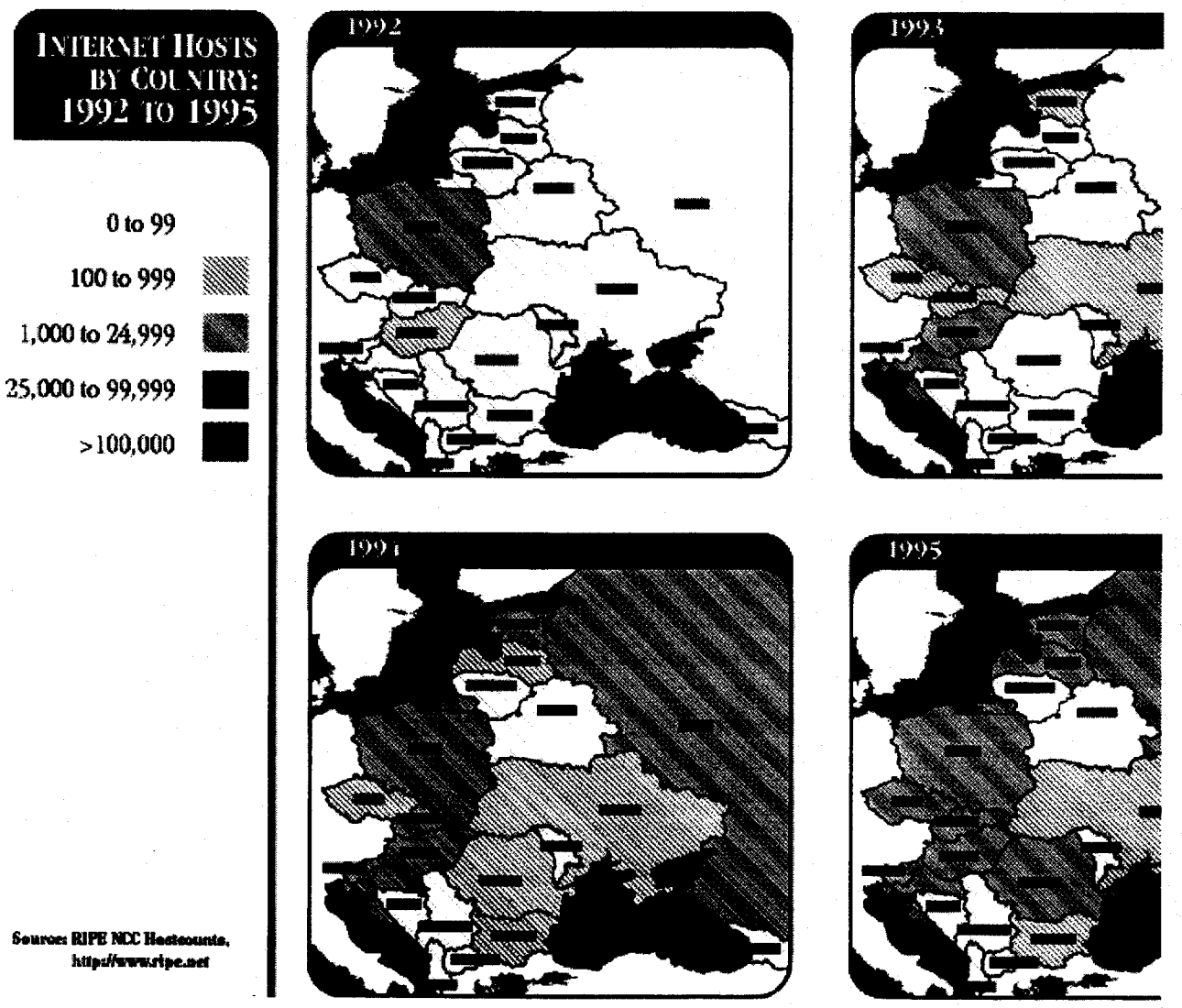
Legend	
0 to 99	
100 to 999	
1,000 to 24,999	
25,000 to 99,999	
>100,000	

Internet Hosts in Eastern Europe

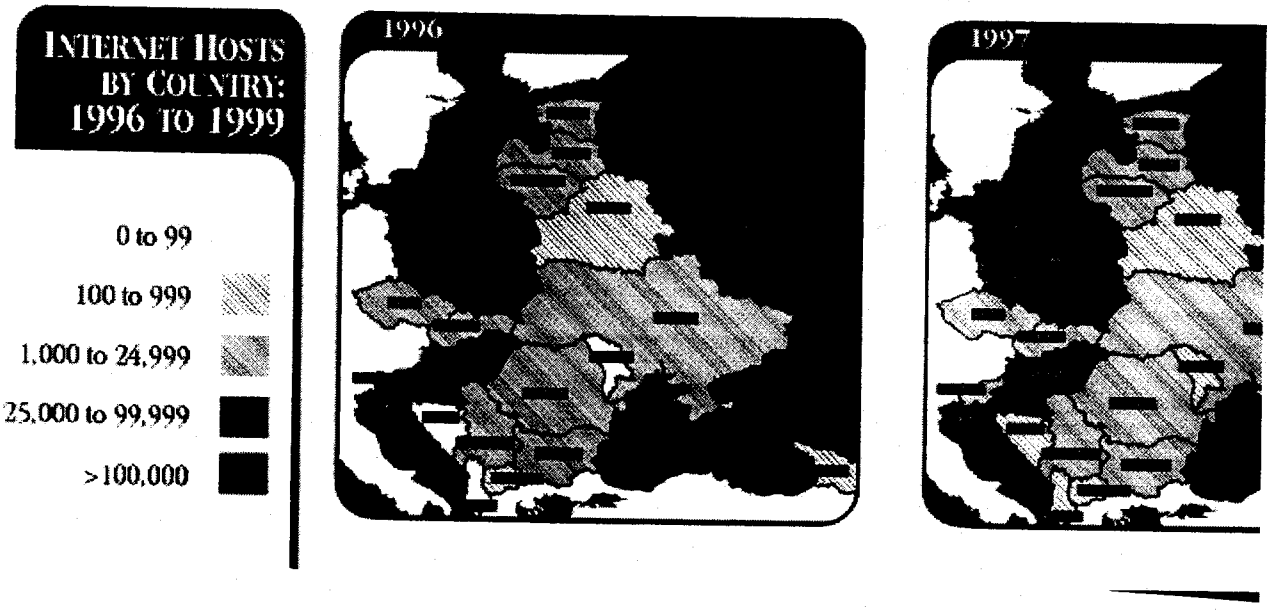
		Nov. 92	Nov. 93	Nov. 94	Nov. 95	Nov. 96	Nov. 97	Dec. 98
Russia	.ru	N/A	N/A	1,550	8,945	39,305	99,787	163,789
Poland	.pl	1,011	4,439	9,476	21,869	49,600	85,960	125,317
Czech Rep.	.cz	-	119	787	2,325	3,775	7,940	11,820
Hungary	.hu	100	2,716	7,382	15,083	30,486	60,585	89,830
Romania	.ro	-	28	464	1,255	5,261	13,723	22,357
Estonia	.ee	64	390	1,190	3,651	5,612	15,369	22,478
Ukraine	.ua	N/A	173	396	1,822	6,450	13,210	21,265
Slovakia	.sk	N/A	780	1,183	2,855	5,193	13,932	21,938
Slovenia	.si	1	560	1,498	3,969	25,126	16,738	22,722
Latvia	.lv	7	53	439	1,286	[illegible]	6,480	13,687
Bulgaria	.bg	-	16	137	873	3,617	6,558	11,213
Croatia	.hr	N/A	4,118	18,402	20,827	39,435	56,615	78,175
Lithuania	.lt	-	-	99	376	1,697	3,754	9,614
Yugoslavia	.yu	11	2	-	-	1,818	3,693	6,886
Bosnia	.ba	N/A	N/A	N/A	N/A	30	118	627
Moldova	.md	N/A	N/A	N/A	10	81	244	548
Macedonia	.mk	N/A	-	89	233	470	452	1,028
Georgia	.ge	N/A	-	-	53	186	401	699
Belarus	.by	-	-	-	17	241	626	1,047
Albania	.al	-	-	-	1	78	120	142
Totals		1,194	13,392	35,192	86,413	225,294	407,805	625,183

Source: RIPE NCC Hostcounts, www.ripe.net

Internet Hosts by Country: 1992 to 1995



Source: RIPE NCC Hostcounts, http://www.ripe.net


INTERNET HOSTS BY COUNTRY: 1996 TO 1999
0 to 99
100 to 999
1,000 to 24,999
25,000 to 99,999
>100,000
1996
1997

• A major barrier to expanding Internet usage in Central Europe is and Georgia is the poor state of the underlying telecommunications infrastructure. Almost everyone, particularly residential users, are presently dependent on telephone dial-up connections to the Internet, and will remain so in the near future.

• Throughout the region, teledensity rates are low, service quality is often poor, and there are long waiting lists for installation of new telephone lines. While teledensity rates are above average in Georgia, service quality is usually uneven, at best, and usually very poor outside of the cities of Tbilisi, Batumi and Poti.

• A major barrier to Internet usage— -in Georgia and elsewhere- - is simply the individual's inability to purchase a computer (or other access to the Internet) and to pay the recurring access charges- -whatever the rate. No additional studies need to be undertaken to confirm this problem: There is just no money in Georgia for Internet access--- what many in the population consider a "luxury" purchase.

• Internet users throughout Central Europe have begun to organize and mobilize around access issues, particularly focusing on the pricing barriers posed by per-minute tariffs. In 1998 and 1999, Internet users in Poland, Romania, Hungary, and the Czech Republic participated in protests against increases in local connection rates, independently and as part of a campaign that has emerged in Western Europe. No such organizations have been formed in Georgia.

Several governments maintain regulations that hamper the development of the Internet. Government policies regarding privacy and censorship could also chill the use of the medium in much of Central and Eastern Europe, due to the influence of the European Union, telecommunications policy is focused on privatization and competition. It is apparent that these are necessary but not sufficient conditions for the expansion of access to both basic telecommunications and Internet services.

• Privatization of the former state-owned telecommunications monopolies attracts the foreign investment that is needed for infrastructure improvement. However, in

recent years in Georgia, business services have been expanded at the expense of universal service objectives.

• Competition also represents a positive factor, leading ISPs in some countries, including Georgia, to lower prices. So far, however, competition in the local loop or "last mile" is very limited in Georgia as it has been in the West also. A new "local" telephone company has begun Georgian operations and provides significantly better service but at higher rates.

• Countries seeking accession to the EU must commit to universal service and under EU directives, the concept of universal service has been extended to Internet access. This is an important lever over national governments, but so far has not been reflected in concrete definitions of universal service or "affordability."

A range of alternative access technologies, including wireless, fixed wireless, satellite and cable modem, hold promise of leapfrogging infrastructure deficiencies. Given the rapid technological changes that are afoot and the global boom in Internet development, there is an urgent need for international and regional bodies to adopt more effective measures to bring affordable access to non-commercial users.

Despite the Internet's democratizing potential, it has been recognized from the outset of the digital revolution that there is a very real danger that the world will be divided into the "information rich" and the "information poor." The United Nations Development Program ("UNDP") focused on the risk of marginalization in its 1999 Human Development Report, noting that the:

"Internet poses severe problems of access and exclusion." With communications technologies playing increasingly vital roles in economic development, education, health care and governance, the exclusion of those who are poor, illiterate, rural or non-English speaking has broad ramifications."

The UNDP concern echoed earlier warnings. In April, 1997, the UN's Administrative Committee on Coordination stated:

"We are profoundly concerned at the deepening maldistribution [sic} of access, resources and opportunities

in the information and communication field. The information and technology gap and related inequities between industrialized and developing nations are widening: a new type of poverty -- information poverty -- looms."

In a similar vein, a 1994 report to the European Council warned:

"The main risk lies in the creation of a two-tier society of have and have-nots, in which only a part of the population has access to the new technology, is comfortable using it and can fully enjoy its benefits. There is a danger that individuals will reject the new information culture and its instruments."

The digital divide exists not only between countries and regions but also within most countries, particularly Georgia, in the form of a wide disparity between urban and rural inhabitants. For instance, in 1995, the number of main telephone lines per 100 residents in urban Russia was 20, while the corresponding figure for rural areas was 8. This divide appears throughout the region: In Georgia, there were 18 main telephone lines for every 100 urban inhabitants, and 3 per 100 rural inhabitants; in Ukraine, the split was 21 versus 7; in Moldova, 23 versus 6; in Slovakia, 28 versus I 1; in Albania, 3 versus 2.

Increasingly through most of this century, access to telecommunications has come to be recognized as critical to commerce, public safety, governance, and overall human development. Accordingly, nations have long defined universal access to telephone service as a public policy goal, along with transportation, postal delivery, electrical service and health care, among other services. In the United States, the universal service goal was written into federal telecommunications law in 1934. In Europe, the government-owned telephone companies were pressed, to greater or lesser degrees, to extend service to all regions, while monopoly providers were similarly bound at least in theory by a "social contract" with the political and regulatory institutions that sustained their monopoly position. Until recently, however, the details of the obligation were not clearly articulated, and reality in many countries has fallen far short of aspiration.

While asserting the desirability of providing Internet access to its population, particularly to its young people, the Georgian government, as other governments in the Region, must balance conflicting spending priorities; the Georgian government is simply unable - -given other priorities- -to sustain the expense of 1) the initial acquisition and installation costs of thousands of computers; and/or 2) the recurring access and telecommunications charges to provide Internet access to numerous locations. Additionally, most governments, including Georgia, do not have the logistical wherewithal to coordinate computer purchases, computer distribution and installation, ISP access, system maintenance and customer service.

III. SCOPE OF FEASIBILTY STUDY AND SUMMARY OF ACTIVITIES

i-world's initial business objective was to establish and operate "communications centers"- -located in Georgian elementary and secondary schools--that would provide school-age children as well as community residents a range of reliable communications services including reliable Internet access and computer and English language instruction. Internet and computer services would be provided to students, free of charge, while community residents would have access to the communications centers, after school hours, on an affordable fee-based payment structure.

The commercial component of the venture was intended to subsidize the educational effort as well as return a profit to i-world and its investors. If profitable, the company had anticipated that it would expand its activities to include Azerbaijan and, as soon as practicable, other countries of the former Soviet Union, particularly the members of the GUUAM group of nations.

This Final Report details the results of the Feasibility Study that was undertaken - - an effort that included a two-month, countrywide Market Survey intended to ascertain Georgian attitudes toward the Internet and computers. i-world believes that this effort was the first 'Digital Divide" Market Survey in a former Soviet Republic. The survey was conducted by forty Georgian University students during the summer of 2000. The Market Survey encompassed interviews of 1-1½ hour duration with 5,934 Georgian households; the results have enabled i-world to better understand the needs of the population as well as the Internet and communications markets in Georgia. Most importantly, the Market Survey results will enable i-world- - and its successor entity the Transcaucasus Foundation- - to utilize finite financial and other resources effectively.

While i-world management- - as confirmed in numerous meetings with the Ministry of Education and anecdotal observances-- was always cognizant of the very high Georgian literacy rate (and Georgians' unique respect for education), the Market Survey also demonstrated the very significant demand for Internet-ready computers and Internet access. In

brief, over 93% of the households interviewed felt "very strongly" or "strongly" that computers and Internet access were critical to Georgia's economic, political and social development; similarly, 91% of these households supported provision by the Ministry of Education (or other entity) of Internet-ready computers in the elementary schools and/or secondary schools. The Market Survey also overwhelmingly confirmed that, while the general population would utilize these communications centers on a consistent basis, it could not afford to pay even the minimal charges contemplated. Similarly, the Georgian government expressed its complete inability to contribute to the financing of the venture.

i-world's intent was to install "Internet-ready" computers as a "communications delivery system" serving the computer, Internet access and communications requirements of, for example, the students of a particular educational facility as well as the thousands of families domiciled in that facility's community. In addition to the facility's primary function, for example, an elementary school in which students would have access to i-world computers and the Internet as a part of their curriculum, each location would become the community's "cyber communications center." The facility would provide, on a for-profit basis, a wide range of computer education, Internet access and communications and business services.

By operating communications centers, throughout Georgia and in conjunction with reliable Georgian and U.S. commercial partners (as well as the Georgian Government), i-world intended to reach, initially, hundreds and, subsequently, thousands of schoolchildren and Georgian families. These are people who otherwise would have virtually no access to computers or the Internet. Revenues from the operation of the communications centers- - derived primarily after school hours -would have been the basis of revenues available to the Company to offset fixed charges and return a profit.

i-world intended to:

- Provide and/or arrange financing for Georgia's purchase, from i-world, of U.S. manufactured computers utilizing U.S. export guarantee programs and install "Internet-ready" computers (and other equipment) in newly-established "communications centers" in target community facilities;

- Provide, Internet- ready computers, free of charge to schoolchildren and educators;

- Provide the communications centers, on a fully commercial basis, Internet access and customized online content including information services, personalized e-mail, specialized e- and b- commerce applications, computer education, online navigational tools;

- Provide a full range of for-profit business services to the communications centers including fax, photocopying and cost effective Internet telephony; and

- Oversee management of the operation of the communications centers.

The purpose of the Feasibility Study was to:

- Conduct a comprehensive Market Survey throughout Georgia--Tbilisi, Kutaisi, and Poti- - to determine the level of support within the country for the Company's proposed Internet access, computer education, value-added Internet and miscellaneous business services;

- Determine a workable pricing schedule for proposed consumer Internet access (and other communications products and services) and determine whether that proposed pricing schedule was, in fact, "realistic" and capable of receiving sustained community support;

- Ascertain the level of support, including financial resources, available from the Georgian government based on the results of the Market Survey findings;

- Determine availability of U.S. export financing guarantees and other U.S. governmental investment guarantee programs to enable the Georgian Government to purchase computers from i-world;

- Determine level of potential commercial Internet and telecommunications industry involvement, including potential availability of financing from Website content

providers and/or Internet telephony providers and/or "ISP official sponsors", including AOL-Time Warner and Microsoft;

- Determine potential level of short-term financial support for the enterprise from nonprofit organizational and other NGOs;

- Determine definitive role and operational involvement of various ISP and telecommunications providers as well as operational involvement Georgian ministries.

The Company had contemplated that revenues derived from the commercial activities of the communications centers--as supplemented, if necessary, by the aforementioned third party financing sources--would realize sufficient income to:

1) Enable the Georgian Government to make appropriate and timely payments for its computer purchases from i-world and for the communications centers' recurring Internet access and miscellaneous telecommunications charges;

2) Build asset value in the Company through guaranteed ISP (and miscellaneous Internet) revenue as well through the potentially hundreds of thousands of loyal "subscriber" Website hits and subscriber e-commerce applications;

3) Enable the Georgian Government to offer free computer education and free Internet access to Georgian schoolchildren and educators; and

4) Provide a level of profitability to the Company.

The Feasibility Study considered the Company's Business Plan for computer sales and financing, Internet implementation, site analysis, marketing strategies, coordination with local and international ISP/ telecommunications providers and Georgian ministries. In

addition, the Feasibility Study confirmed the complete lack of potential financing for a commercial venture from the government of Georgia (even in conjunction, for example, with U.S. financial guarantee programs), from U.S. governmental investment and export loan programs and/or financing from commercial and non-profit sponsors.

The potential impact on the export of U.S. goods and services was also considered and confirmed by the Feasibility Study. The Company was contacted by commercial ISPs and representatives of the governments of Azerbaijan, Uzbekistan and Romania to consider similar programs in those countries. The results of the Feasibility Study and the successful initiation of the Georgian Project would lead to the implementation of similar enterprises, by i-world (and other companies) in other developing countries.

i-world's initial understanding was that the Georgian Government, might be able to absorb a portion of the recurring ISP access charges if U.S. financial assistance (and other economic incentives) were also provided through investment and loan guarantee programs and/or commercial sponsors and/or non-profit organizations. This assumption proved to be incorrect.

As a computer vendor, i-world intended to conclude sale and lease agreements with Georgia whereby the Company would deliver and install Internet- ready computers in these facilities and provide long term ISP and other ISP/telcom services. By utilizing innovative financing techniques and accessing public and private investment and loan guarantee programs, worldwide, including the United States Export -Import Bank, i-world would have enabled the Georgian government to purchase computers from i-world in significant number and on reasonable terms and conditions. Computers would be allocated to educational and other community facilities initially in Tbilisi, Kutaisi and Poti and installed by i-world. Each facility would have become a "communications center" for use by that educational facility as well as the local population.

As an Internet Service Provider, i-world would provide each facility, in conjunction with its Georgian ISP partner, SANET, a full range of Internet access and related online services. It would also provide a full range of business services including fax, photocopying and sale of prepaid

Internet telephony cards. Similarly, the Company would identify and provide the Georgian government a range of potential financing techniques in order that it can meet its obligations to i-world and other. As indicated above, one of the objectives of the Feasibility Study was to identify potential NGO and other non-profit financial guarantors in the event that industry commercial sponsors are unable to assist in the necessary financing.

i-world also sought to secure a viable financial guarantee for payment for computer equipment, software and recurring access charges independent of the primary user's, i.e., Georgia's, contractual commitment. While the Georgian government would be the responsible contractual party, i-world would obtain additional third-party security for its initial investment (computers) and for anticipated major recurring charges, including Internet access and telecommunications services. The Company also intended to provide investment-banking assistance to Georgia in an effort to identify such potential financing sources. Since the government was unable to participate in any manner, such programs are irrelevant.

While short-term payment deficits may have been absorbed by unaffiliated entities including governmental aid programs, not- for- profit organizations, multi-lateral organizations, computer and software vendors, online advertisers as well as an "official sponsor" of the i-world Georgian Website could not be identified. The Feasibility Study was intended, in significant part, to identify and resolve these issues.

Proposed Business Strategy

By entering distinct Georgian markers in a cost-effective manner and by ensuring the payment of multi-year, guaranteed ISP revenue streams, i- world had intended to quickly establish significant Internet access revenues, recurring profitability (and asset value) and become a pre-eminent Internet access provider in Georgia (in partnership with SANET) and Web Portal. Sources of i-world revenues would have included:

- Computer sales to the Georgian government where payment will he guaranteed by a U.S. financing program, foreign investment guarantee program and/or other third parties;

- Recurring Internet access fees paid to i-world pursuant to multi- year contractual commitments by the facilities (and Georgia government) and guaranteed by an unaffiliated financial institution or financial guarantee program:

- Communications center revenues from user fees charged for Internet access, individual e-mail addresses, e-mail origination and delivery, personal and classified ads, Web hosting, e- and b-commerce, computer fax and related Internet, business and computer education;

- Third-party advertising and business to business e-commerce;

- e- and b-commerce transactions and a percentage of "group buying" sales from select and prearranged retailers and other e-commerce providers.

The Feasibility Study began in mid April, 2000 and was concluded in early January, 2001. The Study was comprised of three components:

PHASE 1- - April 15, 2000- - —June 30,2000

Review of U.S. Export Financing Programs; Meetings with Georgian and U.S. Governmental agencies and U.S. computer manufacturers and other potential commercial ISP and telecommunications partners.

Phase 1 activities included:

1) Meetings with Georgian governmental agencies, including Office of the President and Ministries of Education Finance, Transport Telecommunications;
2) Meetings with U.S. governmental and multilateral financing agencies including U.S. Export -Import Bank, U.S. Overseas Private Investment Corporation, International Finance Corporation and EBRD;
3) Meetings with U.S. computer and software manufacturers, potential

commercial sponsors and providers of services and content;

4) Meetings with SANET and others to draft Business Plan for commercial (and not for profit) educational venture;
5) Projection of potential consumer pricing;
6) Determination of availability of third-party financing to guarantee Georgian government obligations;
7) Selection of potential U.S. suppliers and providers of goods and services and review of proposed computer purchase agreements;
8) Determine level of non-profit-NGO support.

PHASE II - July 1,---September 30,2000

Evaluation of market demand and availability of existing services.

During this three month period, a detailed Market Survey was undertaken in Georgia in order to determine the level of interest of the Georgian population and included detailed household interviews with 5,934 households throughout Georgia. The purpose of the Market Survey and related effort was to gather realistic historical and newly generated statistical data indicating likely future growth in demand for ISP and telecommunications services, in general, The Market Survey included the following factors:

1) Ascertained Consumer Income levels;
2) Ascertained existing consumer ISP/telecommunications usage patterns;
3) Ascertained potential future consumer demand for communications centers' ISP/telecommunications and business services;
4) Ascertained Consumer Demand for various ISP/telcom services at various pricing levels;

Additionally, the following was also undertaken during this period:

1) Service pricing analysis;

2) Pro Forma Revenue and Expense analysis of proposed service offerings;

3) Meetings with Georgian ISPs, including SANET, and ISP "backbone" providers (e.g., UUNET, PSINET) and U.S. telecommunications carriers to determine ISP system configuration; meetings with U.S. Embassy officials in Tbilisi;

4) Determined availability of local services, including computer education instructors;

5) Preliminary selection of communications center sites and meetings with other Georgian governmental officials in Tbilisi, Kutaisi and Poti;

PHASE III-----OCTOBER 1, 2000---January 12, 2001
FINAL PROJECT ANALYSIS AND PREPARATION OF FINAL REPORT

Phase III included the drafting of the Final Report USTDA, additional meetings with Georgian and U.S. governmental agencies and the following:

1) Analyzed results from Phase 1 and Phase II activities;

2) Meetings with public and private investors and i-world shareholders;

3) Meetings with Georgian embassies in U.S., Belgium and Germany;

4) Determined legal framework;

5) Prepare detailed and final pro

forma financial analysis;

6) Evaluated Preliminary Business Plan And Potential Project feasibility;

7) Formed Transcaucasus Foundation, Inc. and obtained Tax-exempt status

7) Meetings with Education Minister Kartozia and Deputy Minister Sanadze;

8) Drafted Final Report to USTDA;

IV. OVERVIEW OF THE GEORGIAN TELECOMMUNICATIONS AND INTERNET SECTORS.

An integral aspect of the Feasibility Study was a review of the Georgian telecommunications and Internet industries and how the development of these markets would effect i-world's proposed business operations.

a) Introduction

During Soviet times, the Georgian telecommunications sector was centrally managed and completely controlled from Moscow. This branch of the Soviet economy was, of course, under the total control of the Communist party and Soviet government. Telecommunications access in Tbilisi, Batumi and Kutaisi was usually adequate while in rural and mountainous areas of the country it was (and remains) "fundamental", at best. The collapse of the Soviet Union and the post-Soviet economic crisis that ensued has had a negative effect on all branches of the Georgian economy, including the telecommunications sector. During the long and difficult economic crisis— -which, of course, continues as of the date of this Final Report- - much of the telecommunications infrastructure has deteriorated even further. This is particularly true in areas outside of Tbilisi and Batumi, although these cities' infrastructure makes dial up Internet access also difficult.

Transformation into a market economy has been especially difficult for the Georgian telecommunications industry. It has faced organizational and financial problems since it lost its main source of funding, and the Soviet-run, albeit inefficient management system. This state of affairs has, in turn, also effected the development of Internet Service Providers and their ability to provide reliable and cost-effective Internet access. Georgia, like most of the countries of the former Soviet Union, is seriously hampered in its Internet connectivity efforts because of the poor state of its telecommunications infrastructure. As of 1996, there were 567,400 main telephone lines, for a density of 10.5 lines per 100 inhabitants.

This statistic represents an increase of less than 30,000 lines over 1990, a notably low growth rate. As of 1996, there were 230,000 unsatisfied applications for telephone service and in 1999-- the latest year that statistics are available -- approximately 200,000. Most of the telephone lines in Georgia are analog, with few digital lines suitable for high-speed data transfer. As of 1998, only 10% of the country's switches were digital.

The following provides, in summary form, certain preliminary data:

-------GDP per capita: $1,350
-------Population: 5,108,527
-------Phone lines: 567,400
-------Teledensity: 10.5
-------Internet hosts: 842

Telecommunications services in Tbilisi--where approximately forty per cent of the population resides expanded tremendously over the past few years. As a result of developments in both wire-line and wireless communications, the Tbilisi telecommunications infrastructure now possesses, at least, the potential to engage in sophisticated telecommunications activities that are more in line with worldwide standards

Institutionally, the Ministry of Communications recently merged into a new Ministry, the Ministry of Transport and Communications. It had been, until the merger, the operator, supervisor and policy maker in the field of telecommunications. The old Ministry was an inefficient and unprofitable state-owned branch of the Georgian economy and it became clear that Georgia could not continue to subsidize the telecommunications sector. In order to overcome the crisis in the telecommunications industry, the government of Georgia sought to develop the sector by attracting foreign investment. This strategy envisaged the separation of commercial activities and regulatory functions of the state, and the establishment of an attractive environment for foreign investment. It hoped to bring in modern technology, and provide high quality service and management. It has been moderately successful.

The Ministry of State Property Management simultaneously decided to privatize and/or transfer the management rights of various state owned enterprises to private companies through purportedly transparent, international competitive tenders. In the first stage, a legal framework was established, thus enabling the state to set up a licensing system for foreign investors. The Ministry of State Property Management is responsible for the preparation of telecommunications tender documents and negotiations with potential investors as well as managing the competitive tenders for privatizing state owned assets in telecommunications. The tender program will constitute a substantial step forward in the establishment of an open, competitive and hopefully successful telecommunications and Internet market in Georgia.

Unlike many other Newly Independent States, by the adoption of The Law on Telecommunications, as supported by the Law on Privatization and other enactments, Georgia has created a legal, competitive and positive environment for business - enabling many private enterprises to enter the telecommunication sector without any significant barriers. The Ministry of Transport and Communications has granted over five hundred telecommunication licenses since 1997 and most of the applicants requesting licenses have been approved. The mechanism of licensing was not burdened by complicated procedures, licenses are not exclusive, do not confer particularly privileged status on their holders and do not cause future barriers to market entrants.

A special body - the National Regulatory Commission was recently established. This regulatory body is now responsible for licensing, monitoring, setting tariffs and other technical aspects connected to the communication sector on behalf of the Law on Telecommunications, supported by the law on Privatization. The process of certification is conducted by independent certification agencies as well as by a special department of the Ministry of Transport and Telecommunications on behalf of these agencies.

In accordance with the processes mentioned above, Georgia has attracted significant investment since 1997 and approximately $170 million worth of telecommunication equipment has been installed in Georgia since the beginning of that year. This include approximately 200,000 local and trunk-switching ports, two modern international gateways, four satellite ground stations, substantial microwave and fiber

optic trunk transmission routes, infrastructure for 100,000 cellular subscribers, several international satellite earth stations and international gateways, two paging systems, and several trunk mobile devices. These assets were mainly purchased through foreign investment. As a result, telecommunications has become one of the more competitive and rapidly growing branches in the Georgian economy.

However, widespread concerns remain that the way in which the telecommunication sector of Georgia is formed is not always transparent and competitive. It seems obvious that newly established companies might collude and therefore form a monopoly. Should this happen, there would a be serious danger for the business environment and consumer rights protection, thus creating significant barriers for new entrants.

Despite these achievements, local, (that is, the "last mile") networks that originally served the whole population and are still state owned, are in a state of collapse. This is mainly caused by a lack of funds and inefficient management. In order to prevent deterioration and secure the local telecommunications network, the Georgian government intends to take several steps. The government plans to sell part of its assets in the telecommunication sector. The state still owns 51 percent of Georgian Telecom the long distance operator, 100 percent of Georgian Electric Connections ("GEC") the state-owned, local fixed-line and a number of licenses still remain undistributed. Shares of Georgian Telecom are considered by many as the most attractive and significant. The Ministry of State Property Management intends to sell these shares through an open competitive tender. Priority will be granted to strategic investors that are not connected to any of the existing players in the telecommunications market.

The Ministry of State Property Management together with the Ministry of Communications also intends to sell one hundred percent of the shares of Georgian Electric Connections, which is the main local operator. It remains unclear as of this date whether the shares of these entities will be sold and/or transferred to new operators under long-term management agreements. Additionally, there are number of communication licenses for sale that could be attractive for potential investors.

Overview of Market Participants

At present, the Georgian telecommunication sector is developed sufficiently to provide certain basic services to its customers, ore or less adequately. These services include local service international voice and data services, mobile GSM and AMPS systems, Internet, and Paging. International service is provided by a number of companies in Georgia. There are four significant competitors operating in the Georgian international communications market: Georgian Telecom, Egress, Goodwillcom, and Saktelekom Plus. All of these companies operate through Intelsat and Eurosat as well as other international satellite link providers.

Three competitive players form the Georgian mobile phone market. Magticom and Geocel provide GSM system service, and Megacom is an AMPS operator. Magticom was formed in 1996 as a joint venture between Magti group (51%) and Telcel Wireless (49%). Geocell was also formed in 1996 as a joint venture by Telecom Georgia (2%), Georgian Electric Connections (12%), Turkcell (40%), and Celcom (46%). The American Company - Schuman International Corporation, established Megacom in 1994. Domestic long distance service is mainly provided by Georgian Telecom, however it has strong competitors presented by Fop Net, mobile phone companies and Georgian Electric Connections.

Generally communications in Tbilisi, by sectors, can be characterized as:

- High capacity, modern and reliable inter-exchange fiber-optical transport network based on SDH technology;
- Well developed GSM wireless networks, with data exchange capability;
- Underdeveloped or unusable copper cable infrastructure;
- Telephone exchanges in central part of Tbilisi are old, crossbar systems running out of capacity. Modern digital exchanges present in most districts;
- No public data transmission infrastructure is presented;

There is little meaningful competition on in the local market. Only two companies, Egrisi and Georgian Electric Connections, are operating in the market. Egrisi is a 100% private company and GEC is 100% owned by the Ministry of State Property Management. Accordingly, it is obvious that GEC is

unable to compete efficiently with Egrisi, which owns at least 80,000 modern digital switches and offers its customers a full range of advanced services such as: call forwarding, call waiting, caller-id, flexible billing, and high speed data transfer.

Metromedia International Communications has invested over $40 million in Georgia in the last five years with interests in telcoms, radio and television. It has established two paging companies - Paging 1 and Paging 2- -both of which operate correspondingly on 1800Mhz and 1900Mhz frequencies. Paging service is available only in Tbilisi, therefore this market is yet to be developed in other major Georgian cities.

The two largest Internet Service Providers are SANET (5,000 subscribers), (i-world's local partner and Internet access provider) and CaucasusNet (2,000 subscribers). Internet service has emerged as the most popular and progressive service.

Wireline communications

GEC

The state is 100% owner of GEC. Plans for restructuring and privatization of company are in place, however no framework has been developed. GEC operates the largest wireline network in Georgia with about 400,000 lines in total- - 280,000 lines are installed in Tbilisi and 230,000 lines of these lines are in service. GEC switching system is based on old, 15 years or more, analog crossbar and step-by-step switches. Most of the network infrastructure and equipment was produced and installed in the Soviet era and is primarily related to telephone copper wires and telephone exchanges in remote districts. Backbone connections between major telephone switches as well as lines between telephone switches and customer premises ("Last Mile") are owned by GEC. These connections use low quality, multi-pair copper cables, that were installed 25-50 years ago in different manners: in-duct, buried and aerial. Most of the in-duct or buried cables are defective and have varying degrees of fallibility.

There were definite plans to privatize GEC by the end of 2000 and the Company's restructuring has already started notwithstanding delays. GEC service rates are differentiated

by type of subscriber - Governmental organization, private company and non-governmental, and private individual. GEC also differentiates subscription and monthly rates by type of exchange - step-by-step and crossbar. GEC uses Telecom Georgia as gateway to international and domestic long distance calls.

Akhali Kselebi

"Akhali Kselebi" - a private company established in 1996, provides various telephone services generally similar to GEC and owns networks in Tbilisi, Kutaisi and Poti. Equipment for servicing of 90,000 subscribers is installed in Tbilisi, although only 45,000 are connected. "Akhali Kselebi" had a unlimited, but expensive access to the physical telephone lines from GEC during 1996-1998 and only in 1999 did it start to build and install its own infrastructure. Its present coverage is about thirty per cent of potential Tbilisi subscribers and most are still connected using GEC's telephone cables. "Akhali Kselebi" has installed more than sixteen telephone switches in Tbilisi and all are operational. Exchange equipment is purchased through different vendors: Alcatel, Telrad, Daewoo. All switches provide similar quality and functionality, however advanced services such as ISDN, call hold and call waiting have not been implemented as yet.

The construction of a state-of-art, modern fiber optical transport network based on SDH technology can be considered as one of the major achievements of "Akhali Kselebi". The SDH network consists of 9 rings with OC-12 (622Mbps) backbone and OC-3 (155Mbps) access layer. SDH access points are installed in every exchange building, however several are not in use. SDH network is built using equipment of ECI Telecom. The Egrisi long distance network is used as gateway for international long distance, while GEC and Telecom Georgia - for domestic and local call switching.

CGS

CGS represents one of the first foreign investments in Georgian wireline telecommunication. CGS coverage does not extend beyond the Rustavi region, but the network and telephone exchanges are based on the most modern Alcatel technologies. CGS owns small SDH rings in Rustavi with fiber-

optical connections to Tbilisi - Telecom Georgia. Services like call hold, call waiting and call security are provided to subscribers at additional charges. CGS uses Telecom Georgia and GEC for nationwide and international call routing. There are plans to expand CGS's network south to Gardabani. A small part of fiber-optical backbone is already in place.

In summary, communications are provided by:

- Wireline:
  - Public digital telephone exchanges;
  - Synchronous digital hierarchy (SDH) fiber optical backbone transports at numerous cities in Georgia;
  - Modern facilities for international connections
- Wireless:
  - Cellular networks GSM 900, 1800 and analog AMPS
  - NMT 450 under development (mostly in Kakheti region of Georgia, Tbilisi connections are limited)

The Internet

Although progress has been made with the help of non-governmental organizations, development of the Internet in Georgia has been severely limited due to a number of deeply-embedded factors ranging from the archaic state of the country's telecommunications infrastructure, to the high cost of connectivity and of basic computer equipment in relation to average salaries, the lack of system administrators and qualified engineers, and the susceptibility of the nation's electrical supply to erratic interruptions. Lack of income is the main factor for a slow Internet growth.

Georgia established its first permanent Internet link in the summer of 1995, and since then progress has been made in expanding the Internet. However, until the nation's overall telecommunications infrastructure is improved, fast and reliable Internet connectivity in Georgia will not become a widespread reality. As of 1998, there were several ISPs in Georgia. The High Energy Physics Institute at Tbilisi State University, a non-commercial provider, provided Internet access to scientific organizations and universities. The Institute of Computational Mathematics at the Georgian Academy

of Sciences provided access for all of the institutions within the Academy. SANET, a commercial provider and i-world's Georgian partner has the most advanced Internet equipment in Georgia, including a satellite link at 256k to the U.S. Other commercial providers include Caucasus Net and Global One.

Although the cost of using the Internet in Georgia remains high, prices were falling due to competition. For a long time, SANET was the only reliable commercial Internet provider and was able to charge $150 per month for just two hours a day of Internet access. But after the appearance of new commercial providers in 1997, SANET reduced its fees to $15.38 per month for eight hours of Internet access to be in line with the rates of the new providers. However, a proposal by the Georgian Ministry of Communications to introduce a per minute fee for local telephone calls would certainly stifle Internet development.

The five largest ISPs in Georgia with their respective estimated market share are provided below:

- Sanet --- 50%
- Online - -20%
- Caucasus Net -15%
- Iberiapac—5%
- Global One-5%

Promoting Internet Infrastructure Growth

The Open Society Institute (OSI) has provided significant technical and financial support toward improving Internet connectivity in Georgia. In 1995, the Open Society Georgia Foundation (OSGF) and the OSI Regional Internet Program (OSI-RIP) began installing computer equipment, providing technical training and establishing Internet connections among schools, government agencies and private organizations throughout Georgia. OSGF and OSI-RIP also set up an email connectivity program, which distributed email starter kits containing a personal computer, a modem and access to email to a range of institutions, including universities, secondary schools, independent media, non-governmental agencies and libraries.

Other organizations have undertaken programs in Georgia to help improve connectivity and train people how to use the Internet. A grant from the United States Agency for International Development, administered by the Parliamentary Human Rights Foundation, initiated a project called "Supporting the Rule of Law in Georgia through Internet Connectivity." The project linked the Georgian parliament and other government organizations in Tbilisi to the Internet via a satellite link. Also in 1995, INTAS a program sponsored by the European Union, OSI and OSGF, provided funding to help the Georgian Academy of Sciences establish a permanent link to the Internet.

That link was established in 1996 when a satellite earth station was installed at the High Energy Physics Institute. In early 1997, the OSGF opened the Internet Center for Wide Open World, whose main purpose is to provide Internet grants to organizations across Georgia. its projects have included grants to organizations working to create and popularize a Georgian character coding standard for the alphabet -- a main requirement for making Georgian information available through the Internet.

The Eurasia Foundation, a private US-based grant making organization, made Internet-related grants to Georgian organizations to support the development of email and Internet training programs, to establish an electronic communications and information center to serve the region of Guria in western Georgia, and to support web site creation. The International Research and Exchanges Board, a U.S.-based non-profit organization, created the Internet Access and Training Program, which established Internet centers providing free public Internet access and training.

In October 1994, Georgia joined the Central and Eastern European Networking Association (CEENet), an organization formed in 1993 to establish and promote academic and research networking. This was a significant move for Georgia, which previously had not been involved in many international networking programs. By joining CEENet, Georgia was able to begin sharing operational and technical information with other nations in the region and be a part of CEENet's proposals to international organizations for funding to promote network developments.

The Georgian Ministry of Communications has undertaken efforts to modernize the telecommunications infrastructure in Georgia. However, a heavy dependence on international funding makes long-range planning difficult.

V. RESULTS OF THE FEASIBILTY STUDY

1) The i-world Computer/Internet Market Survey

i) Introduction and Methodology

During the months of July and August, 2000, i-world conducted, what it believes to be, the first countrywide market survey in a former Soviet Republic designed to ascertain prevailing attitudes toward computers and the Internet. While "Digital Divide" surveys have been conducted in many Western nations to determine penetration rates and differentiate usage patterns among various categories of a particular citizenry (for example, urban vs. rural), the i-world Market Survey was the first of its kind in a developing nation and characterized by a very high literacy rate.

During the months of May and June, 2000, i-world's Georgian survey administrator, Khatuna Tsimakuridze, selected the forty Georgia university students and recent graduates that would serve as interviewers and group leaders for the Market Survey. Each of these students was selected after careful review of their respective credentials and recommendations from their university professors. Students were assigned to specific regions of the country, with approximately 45% of the students assigned to the cities of Tbilisi and Rustavi- - reflecting the number of households in these adjoining population centers. With the exception of Abkhazia and South Ossetia-- which were both inaccessible and engaged in hostile activities during the summer of 2000 survey period-- every other Georgian Region was included in the survey.

The actual number of interviews conducted in each region was in direct proportion to its percentage of the estimated total Georgian population. In addition to Tbilisi/Rustavi all Georgian urban centers- - Kutaisi, Poti, Supsa, Zugdidi, Batumi, Gori and Telavi- -were surveyed. Additionally, rural regions such as Kasbegi, Kakheti and Svaneti were also included in the survey and interviews were conducted in each of these rural regions to reflect population statistics.

i-world believes that the 5,934 interviews that were conducted during August, 2000 reflected the views of a very broad and comprehensive cross section of the Georgian

population including representatives from all demographic and economic environments.

Despite i-world and The Ministry of Education's continued attempts to secure actual voting (or voter registration) lists, telephone subscriber listings or any other reasonably accurate listing of Georgian addresses and household, i-world reached the conclusion that such lists simply did not exist in Georgia. Available voting and other registration records were either not available for all voting districts and/or not readily accessible under the time constraints presented by the Feasibility Study. Also, all other available materials— -notwithstanding their actual limited degree of potential utility-- were very dated. For example, the most recent available listing of telephone subscribers was dated June, 1989. Recognizing the inherent difficulties of conducting a truly "random" survey in Georgia, the Survey Administrators decided to provide the interviewers strict guidelines but also permitted these men and women to use their discretion in determining "randomness" within those guidelines and within designated interviewing precincts.

The following guidelines were therefore adhered to by the interviewers and subsequently confirmed by the Survey's Administrators' follow-up phone calls to approximately 15% of the interviewed households.

1) Each interview was conducted by two students— - usually one man and one woman and was, on average, of fifty minutes duration.

2) Each respondent provided a contact address and/or telephone number and the Survey Administrators called approximately 15% of respondents to confirm the actual date, time and length of the interview.

3) Households were selected by the interviewers "randomly" according to the following guidelines: one apartment building (or other domicile) in ten was selected randomly; then the first available apartment on the first floor was selected; then, in the second apartment building, the second available apartment on the second floor was selected and so forth.

4) In each household the selected respondent was always an adult person that was on the premises at the time of the interview. Interview times were staggered throughout the day and were conducted every day in August, 2000, except on Sundays. (If two adults were home at the time of the interview, the selected respondent was alternately a man and then, if possible, a woman in the next randomly selected household.)

5) A potential household respondent was never rejected for his or her relative or absolute lack of knowledge of computers, the Internet (or any other matter) or for lack of formal education. Respondents were interviewed according to the "randomness" formula described above and respondents' views were given equal consideration and accurately reported.

6) Respondents were provided the following information both orally and in writing prior to the actual commencement of the interview.

{FROM MARKET SURVEY QUESTIONNAIRE}
{IN GEORGIAN}

SOME GENERAL OBSERVATIONS

1) *Please expect and understand that some persons will not be particularly friendly. Do not, under any circumstances lose your cool; Remember, you are getting paid to be there, the interviewee is not.*
2) *BE ALIVE AND EXCITED. THIS IS A GREAT PROJECT THAT WILL REALLY BRING A BENEFIT TO GEORGIA. LET THE INTERVIEWEE SHARE IN THAT EXCITEMENT AND THAT HE OR SHE IS PART OF THE PROCESS.*
3) *Put the interviewee at ease.*
4) *Introduce yourself, indicating what else you do in life and explain the purpose of the interview.*
5) *Emphasize that responses are all confidential.*
6) *Encourage the interviewee to talk.*
7) *Allow time for responses.*
8) *Do not talk about politics.*
9) *Conduct the interview in plain, easily understood Georgian or, if necessary, Russian.*
10) *Be patient.*
11) *Close the interview on a friendly note.*
12) *Ask whether they have anything else to add that was not covered in the survey.*
13) *Confirm confidentiality of responses.*

{FROM MARKET SURVEY QUESTIONNAIRE}
{IN GEORGIAN}

[SAMPLE INTRODUCTORY STATEMENT TO BE READ BY INTERVIEWER]

Good evening. My name is _____ and I have been asked by the Georgian Ministry of Education and a Georgian/US company, iworld.ge, to meet with you and ask you a few questions concerning your views on computers, the Internet and our schools. With the help of a branch of the United States government,--The United States Trade and Development Agency-- the Ministry of Education would like to start a program that will enable Georgian school children to have access to computers and the Internet while they are in school. THIS SURVEY IS BEING CONDUCTED BY THE GEORGIAN MINISTRY OF EDUCATION AND I-WORLDM, AN AMERICAN COMPANY, PURSUANT TO A GRANT FROM THE UNITED STATES TRADE AND DEVLOPMENT AGENCY TO DETERMINE THE LEVEL OF INTEREST WITHIN THE GEORGIAN POPOULATION FOR A PROPOSED PROGRAM WHICH WILL PLACE COMPUTERS WITH INTERNET ACCESS IN GEORGIAN ELEMENTARY AND SECONDARY SCHOOLS.

The purpose of this survey is to determine the best way of accomplishing this objective with resources that MAY be made available to the Ministry of Education. Everything that you tell me will be kept confidential and your answers will be part of a countrywide survey of about 6,000 interviews exactly like this. We are interested in your own experience with computers and your views concerning computers and the Internet in Georgian classrooms. No one in the Georgian government will have access to these questionnaires to any of your answers. If you do not want us to use your name, that is ok—just let me know and we will keep that identifying information out of the survey. No one will contact you without your permission and no one in the government- —including the Education Ministry- —will ever see your answers. As we go through the questionnaire, if you feel that you do not want to answer a certain question, that is ok also. However, the more complete your answers the better the results of the survey and the more the survey will help get computers into our schools.

THIS SURVEY IS BEING CONDUCTED BY i-WORLD365, INC., AN AMERICAN COMPANY THAT WILL IMPLEMENT THIS PROGRAM IF THE STUDY DETERMINES THAT IT IS COMMERCIALLY FEASIBLE AND/OR POSSIBLE THROUGH OTHER MEANS AND IF IT IS DETERMINED THAT THE POPULATION IS SUPPORTIVE OF THE CONCEPT OF PROVIDING COMPUTERS IN GEORGIAN SCHOOLS.
THERE IS NO ASSURANCE THAT THIS PROGRAM WILL BE IMPLEMENTED BY THE GEORGIAN MINISTRY OF EDUCATION OR I-WORLD. THIS IS A FIRST STEP. ANY QUESTIONS?

In effect, i-world and the Market Survey Administrators relied significantly on the extraordinary good faith and dedication of the Georgian students that carried out the Market Survey. i-world management believes that these students did an outstanding job often in adverse and very difficult conditions

ii) The Survey Questionnaire

The Market Survey Questionnaire (the "Questionnaire") (copies of which in the original Georgian, Russian and English language versions are set forth as Exhibit D) was designed by the principals of i-world, as assisted by Olmstead and Company in New York as assisted by market survey consultants in Tbilisi. The Questionnaire was intended to be relatively simple, clear and to the point with the overriding objective of obtaining simple and unambiguous answers from the respondents - — many of whom, it was assumed, did not have significant personal experience and/or knowledge of computers and/or the Internet.

The Questionnaire was designed to ascertain, inter alia, the following basic information and attitudes from respondents:

1) The percentage— - by age, education and region--of Computer and Internet penetration in Georgia;
2) The importance attached by respondents to computers and the Internet to Georgia's continued economic and social development;
3) The potential utilization by respondents of the telecommunications and Internet services which would be provided by i-world's proposed Internet-based Communications Centers;
4) The respondents' willingness and financial ability to utilize the Communications Centers' fee—based Internet and telecommunications services at varying proposed rate structures;
5) The importance attached by respondents to the Georgian government and/or other public/private entities providing computers

and access to the Internet to Georgian schoolchildren;

iii) Market Survey Results

The Market Survey of 5,934 Georgian households provided considerable information concerning Computer and Internet usage in Georgia.[2] The following is intended to provide an overview of the Market Survey's actual results.[3]

1) Number of Phone Lines Per Household
One---------- 63%
More than one-- 5%
None---------- 32%

{The Survey demonstrated a higher teledensity rate than reported by the Ministry of Telecommunications.}

2) Email Access Per Household
One or More Accounts-----5%
None------ ----------95%

3) Highest level of Education Completed
Elementary/Secondary--- 35%
University---------- 57%
Advanced---------- 3%
None---------- 3%

4) Number of Televisions in Household
None----------7%
One----------61%
Two or more----------32%

5) Computers Per Household
One ---------- ------8%
None---------- 92%

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[2] The 5,934 hard- copy, completed questionnaires that set forth the respondents' responses to seventy-six questions are stored in a secure i-world facility.

[3] The numbered questions (and responses) set forth herein do not necessarily correspond to the order that the question was asked in the Questionnaire.

6) Internet Access From Household

Yes	4%
No	96%

7) Computer Utilization at Home By School-age Children ?

Yes	7%
No	93&

8) Computer Utilization in School or University by Children in Household?

Yes	3%
No	97%

9) Internet Usage Per Household?

Daily	2%
1-3 Times Per Week	4%
Occasionally	4%
Never	90%

10) Access to Computer in Respondent's Office?

Yes	17%
No	83%

11) Office Computers Connected to Internet?

Yes	13&
No	40%
Not Applicable	47%

12) History of Internet Usage

Yes	7%
No/Not applicable	93%

13) Do you Believe that the Internet is a Valuable Educational Tool?

Definitely	51%
Somewhat	34%
Do not Know	9%
Not Really	4%
Definitely Not	2%

14) How Important Do You Think it is For Georgian Children to Have Computer Education?

- Extremely Important-------52%
- Very Important------------31%
- Somewhat-----------------10%
- Not That Important-------- 5%
- Unimportant--------------- 2%

15) How Important Do You Think it is For Georgian Children To Have Access to the Internet as Part of their Education?

- Extremely Important-----49%
- Very Important----------31%
- Somewhat----------------11%
- Not That Important------ 6%
- Unimportant------------- 3%

16) At What Educational Level Do You Think Computer Education Should Begin?

- As early as Possible----38%
- Elementary School-------52%
- Secondary School--------10%

17) Do you agree That Providing Computer/Internet Training Should Be Significant Priority Of the Georgian Government?

- Strongly Agree----------46%
- Agree--------------------40%
- Do not care------------- 9%
- Disagree---------------- 4%
- Strongly Disagree------- 1%

18) If Internet/Computer Centers were Located Near Your Home Would You use These Facilities?

- Definitely-------------- 42%
- Probably---------------- 34%
- Sometimes--------------- 12%
- Not at all-------------- 14%

19) What Would You Mostly Use These Centers For?

- Internet---------------- 53%
- Fax----------------------17%
- Word Processing---------- 7%
- Computer Training------- 23%

20) For Which Service Would You Most Likely Pay an Hourly Charge?

Internet---------- 51%
Fax---------- 10%
Computer Training------ -- 9%
Internet Purchases------- 21%
None---------- 9%

21) How Much Would You Be Willing to Pay Per Hour Internet Access/Computer Time?

2 Lari---------- 4%
1.0 Lari---------- 1%
.5 Lari---------- 40%
Could Not pay at all---- 55%

While it is clear that, while an overwhelming percentage of the Georgian respondents would be desirous to utilize the various Internet-based telecommunications and/or computer services contemplated by the communications centers, the venture could not be undertaken on a commercial basis. Approximately 95% of the respondents indicated either their complete inability to pay for the services or their ability to pay a $.25 per hour rate.

Comparable Internet access facilities are offered in England, Western Europe and the United states at rates ranging from $18.00 per hour - -at many urban Kinko sites- - to an average $1.70 per hour at the EasyEverything Internet Cafes throughout Great Britain and Western Europe.[4] Even assuming a financial participation from a donor government, NGO and/or the commercial sector, profitability would not be a realistic goal.

[4] The EasyEverything Internet Cafes hourly Internet access rates are set according to user demand which is usually determined by the time of day. Voice communications services are also provided, presently only at the EasyEverything Cafes in Berlin and New York, by DeltaThree, a Voice Over Internet telephony company. Calling rates for domestic and international long distance calls are highly competitive.

2) Potential Role of the Georgian, United States and Other Governments

An integral aspect of the Feasibility Study was to ascertain the level of potential support, if any, for the Project through financing and/or in-kind services from the Georgian, United States and other governmental entities. Particularly, i-world sought to determine whether these and other governmental institutions would support what was presented as, in effect, a "mixed use" enterprise, that is, a venture with both commercial and not- for- profit components. The following summarizes i-world's activities in this regard.

a) The Georgian Government

i-world's management was able to meet with all relevant Georgian governmental officials including President Shevardnadze and Chairman of the Georgian Parliament, Zurab Zvania. Additionally, i-world's President met with the following ranking Georgian governmental officials - as well as additional members of their respective staffs- -during the Feasibility Study period- - May-December, 2000.

i) Irakli Meningarishvili— -Foreign Minister.
ii) Nedo Nogeashvili-- Minister of Finance.
iii) Alexandre Kartozia -- Minister of Education.
iv) David Mirtskhulava- - Minister of Energy and Member of Information Society Development Committee.
v) Peter Mamadze --President's Chief of Staff.
vi) Vladimir Sanadze--Deputy Minister of Education
vii) Peter Tsiskarishvili— -Member of Parliament and Chief of Staff of the Parliament's Chairman
viii) Zurab Tskitishvili—Member of Parliament and Chairman, Information Society Development Committee.
ix) David Tarkhan-Mouravi—Deputy Chairman of Development Committee, and Head of Georgian Informatization Department.
x) Temuraz Kancheli— -Manager of World Bank Project "Georgian Gateway."
xi) Kakha Imnadze—Head of Georgian State Information

Member of Information Society Development.

xii) Konstantin Adeishvili- -Minister of Transport and Telecommunications

xiii) Konstantin Esakia— -former Minister Of Communications

xiv) Levan Berzenishvili— -Director of Georgian National Library and Member of Information Society Development Committee.

xv) Konstantin Zaldanatishvili--Georgian Ambassador to the European Union.

xv) Konstantin Gabashvili—Georgian Ambassador to Germany.

xvii) Temuraz Mamatsashvili— -Georgian Ambassador to the United Kingdom.

xviii) Tedo Japaridze—Georgian Ambassador to the United States and Canada.

xix) Valery Chechelashvili— -former Deputy Foreign Minister, Director General Black Sea Economic Conference.

i-world's objectives were generally met with enthusiasm from most of the governmental officials listed above. A number of these office holders were concerned that i-world's involvement in the Georgian Internet and telecommunications sectors might "impinge", in some manner, on their Internet jurisdictional authority. For the most part, these concerns were neutralized by i-world management directly or through the intervention of the Office of the President.

With respect to potential financial assistance, however -- or the provision of in-kind services---it became readily apparent that the Georgian central and regional governmental authorities would not be able to offer any assistance other than through the Ministry of Education's provision of facilities to i-world— -free of charge - -in the elementary and secondary schools within the Ministry's country-wide system. The Georgian government's inability to participate, particularly, in the not-for- profit component of i-world's undertaking is, of course, directly related to the dire economic conditions prevalent throughout the country as exacerbated by the energy crisis during the winter of 2000.

b) The United States Government

i-world management has had discussions with representatives of the Export -Import Bank and the Overseas Private Investment Corporation ("OPIC"). While financial guarantees and other forms of assistance might be available to i-world and/or the Georgian government to guarantee payment for U.S. manufactured computers and software, such aid would not offset annual and recurring operating losses were the venture to go forward as initially anticipated. i-world management believes that an investment from OPIOC-sponsored investment programs would not be available in light of the projected operating losses.

i-world does anticipate, however, based on recent discussions with members of the staff of the Office of the Coordinator of U.S. Assistance to the NIS, that The Transcaucasus Foundation - - as a U.S. not- for -profit undertaking- - would qualify for financial and other forms of direct and indirect governmental assistance. Such aid could be obtained from numerous sources, including directly from USAID, in the form of direct financial grants and/or a wide variety of grants and in-kind services. Financial and other aid would be available including assistance from U.S. assistance programs, including, for example, English language teacher training programs.

c) Commercial and Internet Industry Issues

i-world management met with representatives of numerous Internet companies in the United States (including Time Warner) as well as with the leading Internet and other multi-national companies in Georgia- -including Coca-Cola and MacDonalds. None of these companies had an interest in becoming involved with the venture --as initially contemplated. For example, none of these companies believed that banner advertising would be productive in Georgia given the present limited Georgian computer/Internet penetration and limited spending power. Even assuming significant consumer utilization of the communications centers, advertising would still not be considered by these companies.

i-world management anticipates, however, that many of these commercial entities will offer a more favorable response to a request for assistance from The Transcaucasus Foundation— as a non-profit venture.

c) NGO and International Involvement

Given time constraints, i-world management has not had the opportunity to meet with many representatives of U.S. and international NGO's. Of course, while NGO's would not participate in the financing of a private business venture, assistance might be readily forthcoming for the Transcauscasus Foundation. A member of the Board of Directors of the Foundation, Richard Walden, Esq., has been the President for thirteen years of Operation USA, a leading international assistance group with tax-exempt NGO status. i-world believes that Mr. Walden's participation in the Foundation's activities will be invaluable and will lead to sources of potential financing and co-ventures with established non-profit organizations.

Similarly, while foreign governments would not make financial resources available to a for -profit U.S. corporation, it is very likely that they would provide financial and other assistance either to the Foundation directly and/or to a Georgian NGO affiliate of the Foundation. This affiliate was incorporated in Tbilisi in late December, 2000. Based on meetings in Brussels and Berlin with the Georgian Ambassadors to the European Union and Germany, i-world believes that financial aid to the Foundation's Georgian affiliate will be forthcoming in the years 2001 and 2002. Management does not believe, however, that financial assistance will be forthcoming from the United Kingdom based on numerous meetings with the Georgian Ambassador (and others) in London.

d) Shareholder/Investor Participation and Availability of Equity/Debt Financing

Based on the findings of the Feasibility Study shareholder and/or investor participation will not be available. In August, 2000, one of i-world's investment banker, Adam Goodfriend, of Bank of America (New York), met in Tbilisi with Georgian President Shevardnadze, Chairman of the Georgian Parliament Zvania and the Georgian Finance Minister. These meetings, in conjunction with earlier governmental meetings with Company management, led irrevocably to the

conclusion that financing, of any type, would not be forthcoming for i-world's original Business Plan in light of the anticipated results of the Feasibility study and, particularly, the Market Survey.

VI. VIABILTY AS A COMMERCIAL ENTERPRISE

For the reasons discussed above and summarized herein, i-world's management and shareholders have concluded that the Company's original Business Plan is not commercially viable for, inter alia, the following reasons:

1) Lack of Disposable Income

The Market Survey demonstrated that there was insufficient "disposable income" within the population to enable those who actually would utilize the communications centers' facilities to pay for the services provided. A low per capita spending power was certainly anticipated by i-world; however, the Company had not been able to obtain reliable statistical information- --prior to the results of the Market Survey- -that provided data other than in anecdotal form. The Market Survey demonstrated that the population would not be able to utilize the communications centers on a for fee basis without sacrificing certain basic essentials, including payments for food, electricity and supplemental payments to schoolteachers.

The Market Survey also revealed that it was not a question of "how much" the population was willing to pay for a specific Internet-based service (e.g., one hour of Internet access), but rather that it could not pay anything for that service without a commensurate sacrifice to an existing—albeit basic- - standard of living.

2) Electricity Shortages

As this Final report is prepared, Georgia is in the grips of its annual winter energy shortages. Most Tbilisi neighborhoods and households receive electricity for two hours in the morning and four in the evening. Gas supplies are virtually non-existent and most business must rely of generators to supply electricity. Outside of Tbilisi the situation is even worse with many areas receiving, barely an hour or two of electricity per day—if at all. This year's dispute as to "responsibility" centers around three usual suspects: 1) poor planning and lack of sufficient residential meter installations by AES (the American owner of the Tbilisi electricity distribution company); 2) the "Russians"; and 3)

governmental corruption. It is probably a combination of all three factors that have resulted in this abysmal situation.

What is certain, however, is that it would be virtually impossible to provide Internet access to the communications centers- -on a for profit basis-- without a reliable and cost effective source of electricity. The Company's Georgian ISP partner, SANET, has seen its business fall by a margin of almost 30% this winter as its subscribers' access to the Internet is limited and often actually precluded for long periods of time by the absence of a power supply.

Meetings with the Ministers of Education and Energy made it clear that "preferential" treatment could not be accorded to the elementary or secondary schools in which the communications centers would be located.

3) Telecommunications Infrastructure

While the Georgian telecommunications system is antiquated and often unreliable it would not impose an impediment to the Business Plan contemplated by i-world or the not-for profit activities planned by the Foundation. While "dial up" Internet access often results in broken connections, provision of cost effective T-1 lines would minimize these issues.

4) Governmental Financing

The Georgian government has informed i-world, unequivocally, that its will not be able to provide financing, in any amount, to the Project nor to provide in-kind services other than space for the centers' operations in the designated elementary and secondary schools. Similarly, U.S. government assistance is not available to a for-profit entity as contemplated by i-world. Without a source of assured and on-going revenue to offset the Project's anticipated and recurring operating losses, the project cannot be undertaken as a commercial enterprise.

5) Transparency

i-world management has not encountered any problems, whatsoever, maintaining complete transparency of its proposed business operations in Georgia. As a not-for-profit

U.S. NGO, it similarly does not anticipate any problems in this area.

VII. CONCLUSIONS AND RECOMMENDATIONS

1) Introduction

The following is intended to set forth the Conclusions reached by i-world's management and Recommendations to the Ministry of Education concerning alternative methods that could implement the "Internet in the Schools" program.

2) Conclusions

1) While computer penetration is currently less than 8% throughout Georgia, prevailing demand- - within all sectors of the population - -is very high for Internet-ready computers, cost-effective Internet access and computer/English language instructional programs;

2) The Georgian population does not presently have the available "disposable" income to utilize the fee-based Internet and other telecommunications services contemplated by the for profit component of i-world's Communications Centers. It would be entirely unrealistic to assume that the population would be able to make such expenditures anytime in the near future given the present Georgian economic and political environment. The amount of fee income necessary to offset the Company's fixed and variable operating costs and yield even minimal profit to i-world's investors would not be available.

3) The Georgian population— -urban and rural-- is strongly (95%) in favor of the provision of Internet-ready computers to Georgian schoolchildren. Equally, 92% of the sampled population- -5,934 households throughout the country— - stated that Internet- ready computers and affordable access to the Internet were critical to the country's economic, social and political development.

4) There are no regulatory issues that would delay the implementation of the Internet in the schools Project. i-world's Georgian telecom/ISP partner, SANET, presently has all necessary licenses to provide ISP and

telecommunications services to the country's elementary schools;

5) The existing, basically Soviet-times telecommunications infrastructure is highly unreliable and often incapable of providing adequate "last mile" services to residential households and business establishments. This, of course, makes reliable Internet access difficulty to sustain. Then infrastructure is, however, able to handle the incremental increased capacity of providing Internet access to the proposed communications centers in the country's elementary and secondary schools. Dial-up and/or leased lines are sufficiently available for the Project's limited purposes Similarly, there would be no difficulty in providing internet access to the elementary schools should the Internet in the Schools project be implemented in the manner suggested herein;

6) Current and sustained shortages preclude the operation of the Communications Centers on a for-profit basis since electricity can only be "assured" for a few hours each day.

7) There is a significant demand for computer education and English language instruction in the schools;

8) While the Georgian government is completely supportive of i-world and ITS objectives, it cannot provide financial or other form of in-kind assistance;

9) The Ministry of Education provided its complete cooperation and total transparency prevailed.

Based on the above, and, particularly, i-world's in-country Market Survey, i-world's shareholders have determined that it would not be feasible to make an equity investment in the Project and that the Project does not, at present, constitute a viable commercial enterprise.

Based on the results of the Feasibility Study, i-world is recommending to the Georgian Ministry of Education and USTDA that, in light of prevailing economic circumstances, it would be inadvisable for i-world and its shareholders to proceed as originally intended, that is, to undertake the project as a commercial and for-profit undertaking. i-world is also

informing the Ministry and USTDA that, in order to carry out this venture, i-world management has formed a new vehicle, The Transcaucasus Foundation, Inc. (the "Foundation"), a not-for-profit and Internal Revenue Service ("IRS") tax-exempt, 501(C)(3) corporation.

The Foundation will be headed by General John Shalikashvili (ret.), former German Foreign Minister Genscher, former United States Congressman Jack Buechner. The Foundation will feature a highly qualified executive management team and a Board of Advisors comprised of prominent businessmen, educators and former political office holders.

The Foundation will be the vehicle that executes the Internet program in Georgia and, subsequently initiates activities in Azerbaijan and other countries. The Foundation's objectives, primarily the Georgian and Azeri "Internet in the Schools" programs, will be implemented by U.S. and local management with the participation of each country's respective Ministry of Education and private sector Internet service providers.

i-world anticipates that the Foundation will proceed as follows in Georgia immediately upon successful conclusion of its initial funding requirements:

- A U.S.-led management team will have the responsibility of implementing policy initiatives set by the Foundation's Board of Directors and will oversee all expenditures. The inclusion of local management is essential and will reflect these Georgians' experience in the Internet and telecommunications industries. (For example, there are a number of very talented individuals in the Georgian Internet sector and their involvement will be actively enlisted.)

- The Foundation's expectations and definitions of "success" will be realistic, relatively modest and relevant to the uniquely difficult circumstances in which Georgia and Azerbaijan find themselves today. Obviously, to successfully implement any effort in these countries is complicated and will involve the resolution of numerous inter-related political, economic and social factors. i-world anticipates that there will be very real limitations on what the Foundation can accomplish-

-notwithstanding good intentions and level of available financing.

i-world has retained a small core Georgian staff and intends to establish a pilot project in Tbilisi as soon as preliminary financing can be obtained for the Foundation. The Foundation will seek initial financing from a wide variety of public and private sources in an amount sufficient to cover a three-year operating period. Staged financing will enable i-world to, among other things, construct, equip and operate the program in a number of Tbilisi schools over the three year period and initiate preliminary activities in Azerbaijan as soon as practicable.

Potential sources of funding include U.S. and multi-national corporations, the U.S. and other donor governments (including Germany, the European Union and Japan), multi-lateral financial institutions and/or worldwide philanthropic groups.

3) Additional Recommendations

The following is intended to outline additional recommendations to the Ministry of Education concerning the manner in which the Internet in the Schools Project could be implemented with and/or without i-world and/or the Foundation's participation.

- The Georgian government could determine that its national interests required its funding of the Internet in the Schools Project. To implement the Project, new sources of potential financing could be obtained, for example, through a new universal service tax on all telecommunications usage in Georgia.

- The Georgian government could determine that it will devote an extraordinary effort to secure financing from donor governments and/or international institutions and that is will provide sufficient resources to achieve this objective.

- The Georgian government could make a formal request to the World Bank to reallocate a small percentage of the ten-year loan package to ensure Internet and computer training in Georgian schools.

- Alternatively, it could seek a new loan package specifically to meet this objective, perhaps, as a component of a computer learning program similar to the one recently initiated in Russia. (See Exhibit F.)

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June 2000

The Economist Intelligence Unit
15 Regent St, London SW1Y 4LR
United Kingdom

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Georgia

Outlook for 2000-01

Following his re-election as president on April 9th, and after the landslide victory of his ruling Citizens Union of Georgia (CUG) in the parliamentary election of October 1999, Eduard Shevardnadze is well positioned to pursue his stated aims of speeding up reform, rooting out corruption and building closer ties with the West. However, changes made to his government since the election do not signal a clear move towards far-reaching reform. Where the president will be more decisive is in pushing the country towards closer ties with the West. As a result of an improvement in regional demand and a pick-up in investment activity, real GDP growth will accelerate to 6% in 2000, from 3% in 1999, driven by the industrial sector. Following a surge in average inflation in 1999, as a result of the devaluation of the lari in late 1998, inflation will fall to an average rate of 4.1% in 2000, helped by a stable currency. Exports will grow strongly, owing to improved regional demand, and imports will also recover. The EIU forecasts a slight narrowing of the trade and current-account deficits in 2000, before they widen again in 2001 as imports once again outstrip exports.

The political scene

Mr Shevardnadze easily won re-election, although the electoral process was tarnished. Continuing his policy of balancing power between the liberal, pro-Western wing of the ruling CUG and the more interventionist, pro-Russian wing, Mr Shevardnadze has appointed a relatively unknown outsider, Giorgi Arsenishvili, as his state minister. The government has been reduced in size.

Economic policy

Revenue collection will continue to be a problem in 2000. This will be counterbalanced by looser monetary policy. The latest cut in the refinancing rate brought it to 26% in April 2000, compared with 34% at the end of 1999.

The domestic economy

- Real GDP growth strengthened to 4.4% year on year in the first quarter of 2000, largely as a result of 14.1% year-on-year growth of industrial output.
- Prices fell in the first four months of 2000, mainly owing to seasonal declines in food prices. The exchange rate has remained stable at around Lari2:US$1 in the first quarter.

Foreign trade and payments

The trade deficit continued to narrow in the first quarter of 2000, with exports (on a customs basis) growing by 62% and imports by 10%.

Armenia

Outlook for 2000-01

The battle for power between the president, Robert Kocharian, and the parliamentary majority, the Unity alliance, will continue. The appointment of Andranik Markarian as prime minister is likely to be a short-term measure.

There are increasing calls for the president to resign, and to avoid this [illegible] try to force a dissolution of parliament. In any case political instab[illegible] persist. Despite receiving a boost from stronger regional growth, [illegible] growth is expected to stay at 3% in 2000 because of the ongoing p[illegible] uncertainty. The current-account deficit will widen again in 2000-01, ow[illegible] slow export growth. Although the dram will remain stable in nominal [illegible] inflation will rise in 2000-01.

The political scene

Mr Kocharian responded to calls for his impeachment by sacking the p[illegible] minister. This caused the Unity alliance to reconsider its stance, but [illegible] struggle for overall control of Armenian politics will continue. The attem[illegible] assassination of Arkadi Gukasian, the president of Nagorny Karabakh, [illegible] halted the negotiations over the status of the enclave.

Economic policy

The failure of parliament to approve the privatisation of Armenia's four ener[illegible] distribution companies has delayed the disbursement of the World Bank's thi[illegible] tranche of structural adjustment credit-3, and will jeopardise the start of a new [illegible] credit (SAC-4) worth US$45m. After a period of tight monetary policy in 1999, [illegible] there has been an easing in 2000, with the refinancing rate coming down to [illegible] 26% in April, from 43% at end-1999.

The domestic economy

- Following a fall by 2.2% year on year in the fourth quarter of 1999, real [illegible] GDP growth recovered to some extent in the first quarter of 2000, when it [illegible] recorded an increase of 1.3% year on year.

- Inflation has fallen, owing to a seasonal fall in food prices, to 0.4% year on [illegible] year in March. The currency remained stable in the first quarter of 2000.

Foreign trade and payments

Exports in the first quarter of 2000 fell slightly, by around 1.2%; imports [illegible] showed a strong recovery.

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Next report: Full schedule on www.eiu.com/schedule

Georgia

Political structure

Official name	Georgia
Form of state	Georgia was an independent republic between 1918 and 1921, but in 1921 it was incorporated into the Soviet Union, from which it declared its independence in April 1991. The Abkhazian and South Ossetian autonomous republics, created in 1922, have both declared their independence from Georgia, but this is not internationally recognised. A new constitution was approved in August 1995, which reinforces the presidential-democratic form of government, providing for a strong executive branch and a unicameral 235-seat parliament. A constitutional court met for the first time in late 1996. The constitution does not address the status of Abkhazia or South Ossetia
National legislature	The Republican Council, with 235 members, 150 elected by party list and 85 by single member districts
National elections	Late 2003 (legislative); April 2005 (presidential)
National government	The president appoints the cabinet, subject to individual approval by the legislature
Head of state	President, currently Eduard Shevardnadze, elected by popular vote on April 9th 2000
Main political parties	Citizens Union of Georgia (CUG, ruling party); Union of Democratic Revival; National Democratic Party (main opposition); United Republican Party; Union of Georgian Traditionalists; United Communist Party; Socialist Party; Labour Party; Christian Democratic Union; Industry will Save Georgia

Key ministers	
President	Eduard Shevardnadze
State minister with authority over other ministers	Giorgi Arsenishvili
Speaker of parliament	Zurab Zhvania
Agriculture & food	Bakur Gulua
Defence	David Tevzadze
Economy	Vano Chkhartishvili
Education	Alexandre Kartozia
Environment & natural resources	Nino Chkhobadze
Finance	Zurab Nogaideli
Foreign affairs	Irakli Menagarishvili
Fuel & energy	David Mirtskhulava
Health	Avtandil Dzhorbenadze
Industry	Badri Shoshitaishvili
Interior	Kakha Targamadze
Justice	Joni Ketsuriani
Labour	Tengiz Gazdeliani
Security	Vakhtang Kutateladze
State property	Mikhael Ukleba
Taxation	Mikheil Machavariani
Transport	Merab Adeishvili
Without portfolio	Malkhaz Kakabadze

Central bank chairman	Irakli Managadze

Economic structure

Annual indicators

	1995	1996	1997	1998
GDP at market prices[a] (Lari m)	3,137.0	4,543.9	6,394.0	6,804.6
GDP[a] (US$ bn)	2.4	3.6	4.9	4.8
GDP (US$ bn at PPP)	1.0	1.2	1.3	1.4
Real GDP growth (%)	2.4	11.4	11.3	2.9
Consumer price inflation (%)				
Average	162.7	39.4	7.1	3.6
Year-end	57.4	13.8	7.2	10.7
Population (m)	5.35	5.35[b]	5.35[b]	5.35[b]
Merchandise exports fob[a] (US$ m)	290	372	230	191
Merchandise imports cif[a] (US$ m)	711	686	931	1,045
Current-account balance[a] (US$ m)	–364	–295	–499	–543
Total external debt (US$ m)	1,150	1,348	1,509	1,627
Exchange rate (av; Lari:US$)	1.29	1.26	1.30	1.39

June 2th 2000 Lari1.985:US$1

Origins of gross domestic product 1999	**% of total**
Agriculture	28.0
Industry	13.0
Transport & communications	6.3
Trade	9.1
Total incl others	**100.0**

Components of gross domestic product 1997	**% of**
Consumption	
Gross fixed investment	
Change in stocks	
Net exports of goods & services	
GDP	**10**

Principal exports 1999	**% of total**
Metals (incl ferro alloys, precious & scrap metals)	23.5
Food, drink & tobacco products	17.0
Chemicals	4.8

Principal imports 1999	**% of to**
Oil & petroleum products	19
Food, drink & tobacco products	13
Machinery	7

Main destinations of exports 1999	**% of total**
Russia	18.7
Turkey	15.8
Azerbaijan	8.1
Armenia	6.3
EU	19.9

Main origins of imports 1999	**% of tot**
Russia	16.9
Turkey	12.5
US	12.1
Azerbaijan	7.0
EU	22.5

[a] TACIS, *Georgian Economic Trends* estimates. [b] EIU estimate.

Quarterly indicators

	1998				1999			
	1 Qtr	2 Qtr	3 Qtr	4 Qtr	1 Qtr	2 Qtr	3 Qtr	4 Qtr
Government finance (Lari m)								
Revenue & grants	154.82	143.12	153.33	176.05	129.30	176.70	176.30	n/a
Expenditure & net lending	182.59	203.07	219.72	159.65	161.20	234.60	277.50	n/a
Balance	-27.77	-59.95	-66.39	16.40	-31.90	-57.90	-101.20	n/a
Prices								
Consumer prices (1998=100)	100.9	100.5	96.4	102.2	118.0	121.0	117.0	n/a
% change, year on year	5.9	3.8	1.0	3.5	16.9	20.4	21.4	n/a
Producer prices (1998=100)	99.6	99.8	101.8	98.8	113.8	112.6	114.5	n/a
Financial indicators								
Exchange rate								
Lari:US$ (av)	1.328	1.341	1.350	1.540	2.210	2.063	1.875	1.950
Lari:US$ (end-period)	1.335	1.348	1.364	1.800	2.205	1.940	1.852	1.930
Interest rates (av; %)								
Deposit	19.00	15.33	17.33	16.33	13.67	16.67	15.67	12.33
Deposit (foreign currency)	16.67	16.33	14.33	15.67	15.33	15.67	14.33	13.00
Lending	45.67	50.00	47.33	41.00	37.00	37.00	30.67	29.00
Lending (foreign currency)	45.33	46.33	45.00	50.33	46.67	45.33	40.67	39.00
Money market	38.54	27.60	34.31	72.60	40.00	37.00	31.33	30.13
M1 (end-period; Lari m)	254.06	266.06	239.27	250.67	242.10	247.39	277.47	275.62
% change, year on year	29.6	31.1	-4.1	-10.0	-4.7	-7.0	16.0	10.0
M2 (end-period; Lari m)	360.52	387.46	352.34	369.30	406.31	415.22	445.15	447.06
% change, year on year	45.1	42.4	5.0	-1.1	12.7	7.2	26.3	21.1
Sectoral trends								
Electricity production (kwh m)	2,035	2,085	1,903	2,065	1,868	2,103	n/a	n/a
Foreign trade[a] (US$ m)								
Goods: exports fob	62.5	86.9	77.2	73.1	27.5	55.8	66.1	78.8
Goods: imports cif	-244.9	-297.3	-312.6	-279.7	-137.3	-152.5	-143.4	-152.7
Trade balance	-182.4	-210.4	-235.4	-206.6	-99.8	96.7	-77.3	-73.9
Foreign payments (US$ m)								
Merchandise trade balance	-182.3	-169.7	-213.7	-194.6	n/a	n/a	n/a	n/a
Services balance	-19.6	-8.9	-7.7	-18.9	n/a	n/a	n/a	n/a
Income balance	44.0	48.1	48.1	50.6	n/a	n/a	n/a	n/a
Current-account balance	-104.4	-82.6	-111.4	-118.0	n/a	n/a	n/a	n/a
Reserves excl gold (end-period)	167.65	138.40	129.98	122.99	103.23	94.21	170.76	132.39

[a] Balance-of-payments basis.

Sources: TACIS, *Georgian Economic Trends*; IMF, *International Financial Statistics*.

Outlook for 2000-01

Political forecast

Domestic politics

As expected, Eduard Shevardnadze was re-elected as Georgia's president on April 9th. After the landslide victory of his ruling Citizens Union of Georgia (CUG) in the parliamentary election in October 1999, Mr Shevardnadze is now better positioned to pursue his stated aims of accelerating economic reform and reorienting the country more towards the West.

Mr Shevardnadze has initiated personnel changes and has reduced the size of the government. The merging of the economic ministries makes good sense and should provide for more coherent economic policies. However, the changes are not as fundamental as many hoped for and do not signal a clear move towards far-reaching reform. Instead, the appointments Mr Shevardnadze has made to his new government suggest that what remains uppermost in his mind is ensuring a balance between the two main strands of the CUG, one pro-Western and pro-reform and the other favouring a more interventionist approach. The appointment of a new minister without portfolio, concerned primarily with conflict resolution, is a positive step in this direction.

Mr Shevardnadze will be more decisive in pushing the country towards closer ties with the West. During his election campaign he stated that he would use his five-year term to try to secure membership of NATO for Georgia. Already his approaches to NATO have been received more positively than has hitherto been the case. However, while it may be in Georgia's strategic interest to seek closer ties with the West, Mr Shevardnadze will want to put relations with Russia on a more friendly footing.

Mr Shevardnadze is looking to the Organisation for Security and Co-operation in Europe (OSCE) to be the main arbiter in resolving the conflicts that have plagued Georgia since independence. The OSCE is likely to prove more successful than the UN, particularly in Abkhazia. However, the UN's military observers will not be leaving the conflict zone, and the OSCE will find it difficult to negotiate an equal footing with the UN in what is scheduled to become a joint operation. Progress towards a full settlement to the conflict will continue to be slow, and renewed violence during the coming months cannot be ruled out.

Following the codification of Adzharia's autonomous status into the constitution, relations between the central government in Tbilisi and the regions of the country not affected by conflict will improve. During the final stages of the election campaign Mr Shevardnadze held a meeting with Aslan Abashidze, the Adzharian leader, and promised him a number of constitutional concessions. Mr Abashidze pulled out of the presidential election two days before polling day and appears keen to mend fences with Mr Shevardnadze and the CUG. This improvement in relations will bring economic as well as political benefits. In return for gaining full autonomous status for his region, Mr Abashidze has promised to transfer more of Adzharia's revenue to the central budget. If the corruption prevalent in the customs posts on the border with Turkey is also tackled, Georgia's revenue intake could improve significantly.

International assumptions

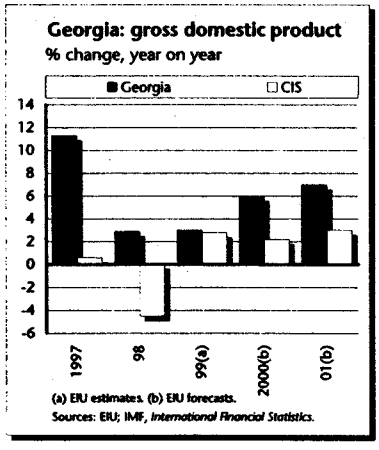
High oil prices, which we forecast will average US$24.50/barrel in 2000 and US$20/b in 2001 for Dated Brent crude, will be a source of inflationary pressure. However, the Georgian economy will benefit from stronger regional and global growth.

After a very poor second half of 1998 and early 1999, performance in the transition region picked up in the second part of the year. The better than expected performance was in part attributable to recovery in the Russian economy, which has proceeded at a much faster pace than expected. In addition, the impact of the Kosovo crisis on the economies of the surrounding countries was less severe than we had foreseen. We have therefore revised upwards our forecasts for the east-central European region in 2000—with growth expected to average 3.9%, compared with 2.3% in 1999. The Russian economy, Georgia's main export market, seems set to exceed the performance of 1999, when real GDP increased by 3.2%.

Despite OPEC's decision at the end of March 2000 to increase its production limits, oil prices have remained high in the second quarter, owing to high global demand. Nevertheless they are expected to ease during the remainder of this year. In 2001 average oil prices will fall by around 20%, as a result of the expected slowdown of the US economy and higher global oil production.

Economic growth

Real GDP grew by 4.4% year on year in the first quarter, largely as a result of fast industrial output growth, which reached 14.1% year on year. Stronger regional demand, lower interest rates and faster progress on structural reforms, in particular privatisation, will propel real GDP growth to around 6% in 2000. In 2001 real GDP will be given a boost by increasing foreign direct investment related to the expected start of the construction of the Baku-Ceyhan pipeline—carrying oil from the Caspian via Georgia to the Turkish Mediterranean Sea port of Ceyhan—and is forecast to expand by 7%.



Georgia: forecast summary
(US$ m unless otherwise indicated)

	1998[a]	1999[b]	2000[c]	2001[c]
Real GDP (% change)	2.9	3.0[a]	6.0	7.0
Consumer price inflation (%)				
Average	3.6	19.2[a]	4.1	5.0
Year-end	10.7	11.0[a]	4.3	4.8
Merchandise exports fob	300.1	345.1	414.1	455.6
Merchandise imports fob	1,060.4	795.3	894.7	1073.7
Current-account balance	–416.3	–121.3	–127.1	–239.3
% of GDP	–8.5	–2.9	–2.8	–4.8
Exchange rate (av; Lari:US$)	1.39	2.02	1.99	2.06
Exchange rate (year-end; Lari:US$)	1.80	1.93	2.05	2.11

[a] Actual. [b] EIU estimates. [c] EIU forecasts.

Inflation

Prices have fallen month on month since February, mainly because of the seasonal decline in food prices. With the exchange rate remaining stable, the main source of inflation in 2000 will come from the rise in global oil prices and from increases in regulated prices. Inflation in 2000 is officially forecast at

6-9%. However, we forecast that the average rate will be lower, at 4.1%. Average inflation will rise to around 5% in 2001 as consumer demand strengthens.

Exchange rates

Monetary and exchange-rate policy has been sound, with the exchange rate remaining relatively stable at around Lari2:US$1. Tight controls over the issue of money are likely to keep the exchange rate stable for much of 2000, with only a slight nominal depreciation in 2001. This will ensure gradual real appreciation over the forecast period.

External sector

In the first quarter of 2000 the trend of fast export growth has continued. Having fallen by around 40% in 1999 (on a customs basis), imports also started to recover. According to the State Statistical Department, recorded export revenue (on a customs basis) grew by 62% year on year and import expenditure grew by 10% year on year in the first quarter of 2000. A recovery in regional demand will result in continued strong export growth during 2000-01. Imports will also recover as a result of a pick-up in consumer demand and investment activity. The trade and current-account deficits are expected to narrow slightly as a percentage of GDP in 2000, before widening in 2001 as imports increase more rapidly because of stronger consumer demand.

The political scene

Mr Shevardnadze is re-elected

The incumbent, Eduard Shevardnadze, easily won the presidential election held on April 9th 2000. Official returns from the Central Election Commission (CEC) gave Mr Shevardnadze 79% of the vote, with the nearest challenger, Jumber Patiashvili, receiving only 16.6%. Four other candidates gained less than 1% of the vote between them. The turnout was officially 75.8%. Throughout what was a rather lacklustre campaign the result was never seriously in doubt. The leader of Adzharia, Aslan Abashidze, was considered the most serious challenger to the incumbent, but withdrew his candidature on the eve of polling, having been promised that Adzharia would have its autonomous status enshrined in the constitution.

The polls are marred

The election was poorly conducted and has tarnished the image of the country as a bastion of democracy in the Caucasus. Mr Shevardnadze's status as a world statesman has also suffered, as the results are reminiscent of the near-unanimous verdicts returned in the Soviet era. The monitors of the Organisation for Security and Co-operation in Europe (OSCE) said that Georgia has to make substantial progress to meet its commitments with regard to conducting elections. They found evidence of ballot-stuffing and manipulation during the counting stage. Opposition groups have also cried foul, although the extent to which they can force any change is limited. Perhaps the major area where the election was found wanting was in the turnout figures. It was widely acknowledged that voter apathy was strong, and in view of the incumbent's lead in opinion polls there appeared little reason for the electorate to vote. Government insiders have admitted that the turnout was probably closer to 50% than the 75.8% announced by the CEC. It appears that the CEC

may have inflated figures, fearing the turnout would fall below the 50% threshold necessary for the election to be considered valid.

One consequence of the poor conduct of the election has been a call by the international community for the country's election-related legislation to be rewritten, something that the speaker of parliament, Zurab Zhvania, has promised to do. Georgia is scheduled to hold elections for city mayors and regional governors in 2001 and the legislation should be in place before then.

A new state minister and government are appointed

Mr Shevardnadze made some changes to his government following his re-election. The new state minister is the governor of Kakheti in the eastern part of the country, Giorgi Arsenishvili. The position is soon to be upgraded to that of prime minister. The choice of Mr Arsenishvili is something of a compromise but represents a victory of sorts for the reformers. Within the ruling Citizens' Union of Georgia (CUG) there are two main groups. Mr Zhvania controls one wing, considered the most pro-Western and pro-reform, and Vazha Lortkipanidze, the previous state minister, represents a group of former industrialists who share a slightly more pro-Russian and state interventionist position. Both were touted to become the new prime minister. The choice of Mr Arsenishvili demonstrates that Mr Shevardnadze is firmly in charge, and also signals a move away from Russia and towards reform, without handing the reformers a completely clear run.

Little is known of Mr Arsenishvili, a former mathematician at the Georgian Academy of Sciences, but he has been the president's representative in Kakheti since 1996 and has managed to keep the area calm, although he has not done much to boost its economic potential. Kakheti is one of Georgia's main agricultural and wine regions. Politically Mr Arsenishvili is undoubtedly loyal to Mr Shevardnadze, if not yet to the ruling party. As speculation begins on who will be the president's eventual successor, it is not yet clear whether Mr Arsenishvili will be Mr Shevardnadze's choice.

The budget battles rages

In the Georgian parliament, the ruling CUG is having problems with party discipline and a row has developed over the budget. In what was intended to be a good public relations gesture, the government published figures outlining all foreign investment in and aid to the country since 1995. However, although the origin of the funds was clearly explained, less detail was offered on how they were distributed. The parliament was angered by what it saw as a cover-up, and this, combined with the likelihood of a shortfall in government revenue in 2000, is causing a rift. The leader of the Union of Georgian Traditionalists, Akaki Asatiani, called for criminal proceedings to be instituted against various members of the government. Some 120 members of parliament, including members of the ruling party, signed a petition agreeing with his statement. When Mr Zhvania warned CUG members to retract, they refused. On May 8th the chairmen of nine parliamentary committees resigned in protest against the speaker, despite the fact that he had the support of Mr Shevardnadze. Although the episode was no more than a spat—the chairmen apologised profusely to Mr Shevardnadze within a few days—it demonstrates that CUG party discipline cannot be taken for granted.

OSCE sends more observers to the border

Mr Shevardnadze has scored most of his successes since the beginning of 2000 in the area of security. The OSCE is sending more military observers to Georgia's border with Russia, raising the number to 40, to monitor whether Chechen rebels are crossing into Russia. As the snow melts in the Caucasus mountain range and passes open up, the integrity of the border becomes less reliable than during the winter months.

Major progress is made in the conflict areas

In a further development the OSCE has announced through its Chairperson in Office Benita Ferrero-Waldner, Austria's foreign minister, that there is to be a more co-operative role between the OSCE and the UN in mediating a solution in the Abkhazian conflict. Should the OSCE enhance its role as a joint negotiator with the UN over Abkhazia, there may be grounds for hoping for some movement towards a possible solution. The OSCE has tended to be a better negotiating body than the UN, and has the added advantage of being more favourably looked on by Russia. However, in order to succeed it will have to negotiate terms of operation with the UN, which could prove as difficult as brokering an agreement between the Georgians and the Abkhaz. In South Ossetia, where the OSCE is the lead body, progress continues to be made, although a final settlement is not yet in sight.

Russia begins talks to withdraw military bases

Following months of silence, the Russian military have now started talks with their Georgian counterparts on withdrawing the Russian military bases at Vaziani and Gudauta. Agreement to remove the bases was made at the OSCE summit in Istanbul in November 1999. It does seem that, now Russian and Georgian presidential elections are out of the way, the Russians have decided to negotiate a withdrawal. There are suggestions, currently denied, that the two bases will be transferred to Armenia.

Economic policy

First-quarter revenue is lower than planned

Budget revenue from the customs and tax departments was Lari184.6m (US$42.6m) in the first three months of 2000, nearly 16% lower than planned. Although tax revenue was slightly higher than projected, customs revenue was much lower. Revenue collection is central to the government's economic management, as it is the main issue on which the IMF has been demanding improvements. The government's failure to meet agreed targets led the IMF to suspend the disbursement of credits to Georgia in 1998 and 1999.

Customs revenue has dropped because of the fall in recorded imports, which slowed significantly with the establishment by ITS, a UK company, of a pre-shipment inspection system in July 1999. In April 2000 the minister for taxation, Mikheil Machavariani, expressed dissatisfaction with ITS's performance, saying that he considered it necessary to review the contract as both Georgia and the British firm had made losses. However, although critics of ITS argue that pre-shipment inspection merely encourages smuggling (and thereby narrows the revenue base), the more likely explanation is that there was a short-term surge in imports ahead of the system's establishment and that the

head of the metro estimates that it will transport 106m passengers in 2000, and that income will be Lari21m, compared with costs of Lari29m.

The council is in dispute with the privatised electricity distribution company, AES-TELASI, and is trying to insist that the supply of electricity to the metro be made permanent. This in itself is a reasonable demand, given that expensive equipment has often been damaged as a result of the erratic power supply. (Damage to city enterprises because of the unstable supply is said to cost Lari2m-3m per year.) However, rather than compensate the metro for damages, AES-TELASI is threatening to cut off its power supply until it is paid for.

The domestic economy

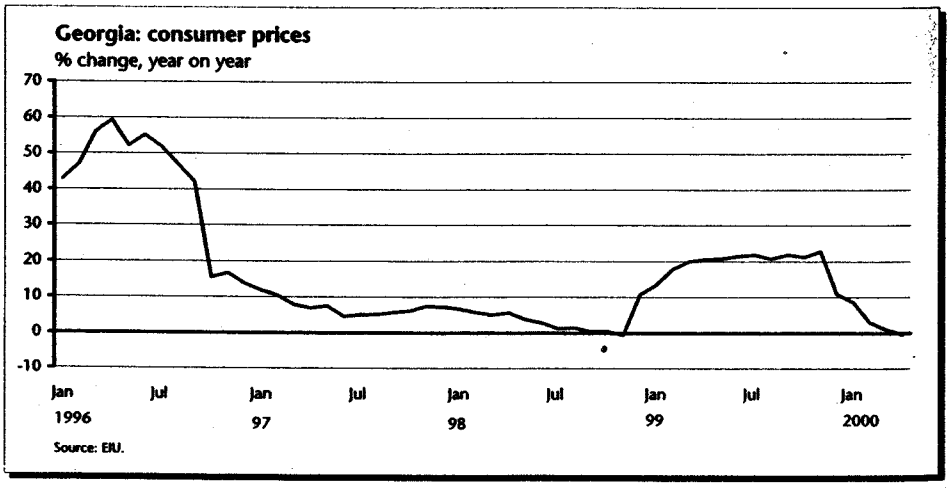
Economic trends

Real GDP growth speeds up

Georgia's first-quarter year-on-year real GDP growth was 4.4%, mainly as a result of the continued fast pace of industrial output growth. Real GDP growth in 1999 was 3%. Of all the members of the Commonwealth of Independent States (CIS), Georgia enjoyed the second highest growth in industrial output in the first quarter of 2000. However, although at 14.1% Georgia's industrial growth was second only to the 15.2% recorded in Kazakhstan, it should be noted that this was from a particularly low base in the first quarter of 1999, when production in heavy industry was severely hampered by the erratic supply of electricity. The main contribution to industrial output growth came from small and medium-sized enterprises, where output grew by 25.5%.

Inflation slows

Year-on-year inflation in April 2000 was –0.5%. Prices fell by 0.1% over the first four months of the year. In January inflation rose to 0.2%, but prices fell by 0.2%, 0.1% and 0.1% in February, March and April, respectively. This was mainly attributable to seasonal declines in food prices, which offset higher tariffs for transport, communications, medical services (where prices were up by 2.7% in March) and payments for public utilities, including water and electricity, which increased by 0.7% in March.



Georgia: consumer prices
(% change)

	Month on month	Year on year
1998		
Jan	0.3	6.7
Feb	1.1	5.7
Mar	0.0	5.0
Apr	0.9	5.6
May	-1.7	3.8
Jun	-1.9	2.8
Jul	-2.4	1.2
Aug	0.3	1.4
Sep	0.1	0.4
Oct	0.9	0.5
Nov	1.1	-0.6
Dec	12.1	10.7
1999		
Jan	2.5	13.1
Feb	5.1	17.6
Mar	1.9	19.8
Apr	1.7	20.8
May	-1.6	20.8
Jun	-1.4	21.5
Jul	-2.1	21.9
Aug	0.0	20.8
Sep	1.0	21.9
Oct	0.5	21.3
Nov	2.4	22.8
Dec	1.2	10.9
2000		
Jan	0.2	8.4
Feb	-0.2	3.0
Mar	-0.1	1.0
Apr	-0.2	-0.5

Sources: State Statistical Department; TACIS, *Georgian Economic Trends*; EIU calculations for annual rates.

The lari remains stable

The lari, which is freely floating, has remained stable at an exchange rate of around Lari2:US$1. The National Bank of Georgia (NBG, the central bank) intervened in 1999 only by buying up US$14.7m in order to bring its foreign-currency reserves up to the level agreed with the IMF. The NBG's foreign-currency reserves stood at around US$130m at end-1999 and have stayed around that level in the first months of 2000. This level of reserves represented 1.4 months' import cover at end-1999.

The T-bill market is picking up slowly

The Ministry of Finance restarted Treasury-bill auctions in August 1999, but yields have been lower than other lending instruments. In order to attract investors the NBG allowed commercial banks to hold 2% of their 16% of required reserves with the central bank in T-bills. The NBG also now recognises 10% of the commercial banks' T-bills portfolio as liquidity, compared with 5% in 1997-98. By end-1999 the yield on 28-day T-bills was 12.52%, with three-month T-bills yielding 13.16%. At end-May yields on 28-day T-bills had dropped further, to 9.78%. T-bills are not a major source of financing of the budget deficit, but they are important from the point of view of the market.

Foreign trade and payments

Trade turnover falls in 1999

According to the Technical Assistance for the Commonwealth of Independent States (TACIS) publication *Georgian Economic Trends*, Georgia's trade turnover on a customs basis fell by 30% year on year to US$824m in 1999, and its trade deficit fell to US$348m, from US$855m in 1998. This is a result of growing exports, as well as a sharp decline in imports. Exports rose by 25% to US$238m as a result of the recovery in exports to members of the Commonwealth of Independent States (CIS) starting in the second quarter of 1999, as well as the ongoing development of trade ties with the EU and the US. The share of exports to the CIS was 45%, with exports to the EU making up 20% of total exports, 1.5% higher than in 1998. Imports from CIS countries, the EU and the US declined as a result of the devaluation of the lari in late 1998. Overall import expenditure fell by 44%, to US$586m. Most imports still came from the CIS countries, which accounted for 38.4% of total imports in 1999, 2% higher than in 1998. The EU's share of total imports declined by 5 percentage points to 23% in 1999.

In 1999 Georgia's largest export category was ferro-alloys and scrap black metals, which accounted for 18.2% of all exports. Nuts, the second largest category, accounted for 6.5% of recorded exports, an increase of 1.6%. Natural gas and oil were the main imports, accounting for 19.9% of all imports. These were followed by food, drink and tobacco products (13.6%), machinery (7.5%) and pharmaceutical products (7.2%).

First-quarter exports increase substantially

In the first quarter of 2000 exports continued their fast growth, and imports started to recover. On a customs basis export revenue grew by 62% year on year, to US$60.7m, and import costs grew by 10%, to US$151m. The trade deficit narrowed by 10%, to US$90.3m. According to the State Statistical Department the main exports in the first quarter were nuts, ferrous metals and ferro-alloys, accounting for 11.5%, 11.1% and 10.1% of exports, respectively. The main import, natural gas, accounted for 20.6% of import costs, followed by tobacco, with 7.1% of all imports.

Trade with CIS countries fell by 14.5% year on year in the first quarter. Nevertheless, Russia remains Georgia's largest trading partner, accounting for 26.6% of trade. Other major trading partners are Turkey (15.6% of trade), Germany (10.4%) and Ukraine (5.3%).

Georgia: foreign trade
(US$ m)

	1997		1998		1999[a]	
	Jan-Jun	Jan-Dec	Jan-Jun	Jan-Dec	Jan-Jun	Jan-Dec
Exports	100.3	230.1	94.0	190.9	93.3	238.2
Imports	–419.7	–930.7	–481.9	–1,045.4	–323.8	–585.9
Trade balance	**–319.4**	**–700.6**	**–387.9**	**–854.5**	**–230.5**	**–347.7**

[a] Preliminary estimates.

Sources: TACIS, *Georgian Economic Trends*; State Statistical Department.

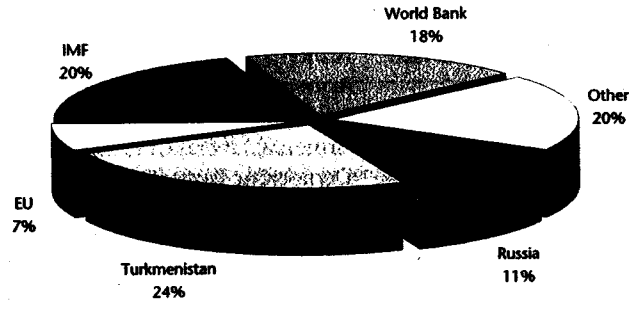
Debt-servicing difficulties

Difficulties in debt servicing have intensified. In 1999 Lari181.1m (US$91.2m; some 15% of budget expenditure) was allotted to the state budget for foreign debt servicing, but only Lari143.6m was used for this purpose. Total contracted credits amount to US$1.93bn (43% of annual GDP). At a projected US$184m in 2000, Georgia's foreign debt-servicing requirement will be almost twice as high as in 1999. In 1998-99 only half of the US$78.8m due to Turkmenistan was paid, leaving Georgia some US$118m in arrears on that debt alone.

By the start of 2000 Georgia's total arrears of US$294.6m were equivalent to about half of the year's planned budget expenditure, with Georgia supposed to begin repaying debts to Russia, Ukraine and China in addition to making payments to Turkmenistan and the EU. However, the budget allocated only Lari174m for debt repayment, making it likely that some 75% of required payments would have to be deferred in some way. Although officials have hoped for a negotiated restructuring, the likelihood is that the government will unilaterally suspend repayment of some of the debts.

Georgia: foreign debt, Sep 30th 1999

% of total



Total: US$1.93bn

Source: EIU.

საქართველოს სტატისტიკის სახელმწიფო დეპარტამენტი

STATE DEPARTMENT FOR STATISTICS OF GEORGIA

საქართველოს სტატისტიკური წელიწდეული

1999

STATISTICAL YEARBOOK OF GEORGIA

თბილისი TBILISI

განათლება, მეცნიერება, კულტურა

EDUCATION, SCIENCE, CULTURE

მოცემულია სახელმწიფო სკოლამდელი დაწესებულებების, სახელმწიფო ზოგადსაგანმანათლებლო სკოლების, სახელმწიფო საშუალო სპეციალური სასწავლებლების, არასახელმწიფო საშუალო სპეციალური სასწავლებლების, სახელმწიფო უმაღლესი სასწავლებლების, არასახელმწიფო უმაღლესი სასწავლებლების მონაცემები.

ზოგადსაგანმანათლებლო სკოლები - განათლების საერთაშორისო კლასიფიკატორის პირველი და მეორე საფეხური - მოზარდი თაობის ორგანიზებული აღზრდის და სწავლების სასწავლო-აღმზრდელობითი დაწესებულებანი. არსებობს ზოგადსაგანმანათლებლო სკოლების 2 ძირითადი სახე: დღის და საღამოს (ცვლიანი) ზოგადსაგანმანათლებლო სკოლები. დღის სკოლები იყოფა: დაწყებით, არასრულ საშუალო, ზოგად საშუალო სკოლებად. ზოგად საშუალო სკოლებს მიეკუთვნებიან გიმნაზიები, ლიცეუმები და კოლეჯები, გონებრივი და ფიზიკური განვითარების ნაკლის მქონე ბავშვთა სკოლები.

დაწყებითი განათლება - განათლების საერთაშორისო კლასიფიკატორის პირველი საფეხური - უზრუნველყოფს საბაზო ელემენტების ათვისებას და გრძელდება 4 წელს.

არასრული საშუალო სკოლა (ძირითადი სკოლა) - განათლების საერთაშორისო კლასიფიკატორის II საფეხურის I ეტაპი - უზრუნველყოფს ცოდნის აუცილებელი მინიმუმის ათვისებას და მოიცავს V-IX კლასებს.

ზოგადი საშუალო განათლება - განათლების საერთაშორისო კლასიფიკატორის II საფეხურის მეორე ეტაპი - უზრუნველყოფს აკადემიურ და პროფილირებულ სწავლებას და მოიცავს X-XI (XII) კლასებს. განათლების ეს სახე არასავალდებულოა, მაგრამ აუცილებელია სწავლის შემდგომი გაგრძელებისათვის.

პროფესიული სახელობო მომზადება - განათლების საერთაშორისო კლასიფიკატორის II საფეხურის II ეტაპი - უზრუნველყოფს კვალიფიციური შრომის უნარ-ჩვევების გამომუშავებას ზოგადი საშუალო განათლების მიღებასთან ერთად ან უმისოდ. არის დაწყებითი პროფესიული, სახელობო სასწავლებლების 2 სახე: პირველი - საშუალო განათლებასთან ერთად აძლევს პროფესიას. აქ სწავლების ხანგრძლივობა 3 წელია, ხოლო მეორე - მხოლოდ ტექნიკურ განათლებას, სადაც სწავლების ხანგრძლივობა 1 წელია და საშუალო განათლების ბაზაზე ხორციელდება.

საშუალო სპეციალური განათლება - განათლების საერთაშორისო კლასიფიკატორის III დონის V საფეხური უზრუნველყოფს საშუალო დონის სპეციალისტის მომზადებას და იძლევა საშუალო და სპეციალურ განათლებას (9 კლასის ბაზაზე) და სპეციალურ განათლებას (საშუალო სკოლის ბაზაზე).

უმაღლესი განათლება - განათლების საერთაშორისო კლასიფიკატორის III დონე VI საფეხური - უზრუნველყოფს უმაღლესი კვალიფიკაციის სპეციალისტის მომზადებას, განათლების მიღებას საშუალო და საშუალო სპეციალური განათლების შემდგომ ეტაპზე.

უმაღლესი განათლების დიპლომის შემდგომი სწავლების სისტემა - განათლების საერთაშორისო კლასიფიკატორის III დონის VII საფეხური - უზრუნველყოფს განათლების მიღებას უმაღლესი განათლების შემდეგ. სწავლება მიმდინარეობს 3-4 წლის განმავლობაში უმაღლეს სასწავლებელთან ან სამეცნიერო კვლევით დაწესებულებებთან. ასპირანტურაში სწავლა როგორც წესი მთავრდება დისერტაციის დაცვით მეცნიერებათა კანდიდატის ხარისხის მოსაპოვებლად. მეცნიერებათა კანდიდატის მიერ სადოქტორო დისერტაციის დაცვის შემდეგ ხდება მეცნიერებათა დოქტორის ხარისხის მინიჭება.

სამეცნიერო დაწესებულებები – სამეცნიერო-კვლევითი, საპროექტო, საპროექტო-საძიებო, ტექნოლოგიური ორგანიზაციები, გაერთიანებები, საწარმოები, უმაღლესი სასწავლებლები, რომლებშიც არის ქვედანაყოფები, რომლებიც ასრულებენ მეცნიერულ კვლევებს, დამუშავებებს და უწევენ სამეცნიერო-კვლევით მომსახურებას.

სამეცნიერო კადრები – სპეციალისტები უმაღლესი განათლებით, რომლებიც ასრულებენ სამეცნიერო კვლევებსა და დამუშავებებს, აგრეთვე ადმინისტრაციულ-მმართველობითი პერსონალი, რომელიც უშუალოდ ხელმძღვანელობს კვლევით პროცესს.

მოსახლეობის განათლების დონე

Educational level of population

	1959	1970	1979	1989	1998	
10 წლისა და მეტი ასაკის მოსახლეობის 1000 სულზე აქვს არასრული ან სრული უმაღლესი და საშუალო განათლება – სულ	448	554	698	798	822	*Per 1000 population of 10 years and over who have completed or incomplete higher and secondary education - total*
მათ შორის:						*of which:*
უმაღლესი	48	73	103	137	188	*higher education*
დაუმთავრებელი უმაღლესი	13	19	19	22	21	*incomplete higher education*
საშუალო სპეციალური	55	69	100	169	162	*secondary special*
ზოგადი საშუალო	137	210	292	328	323	*secondary general*
არასრული საშუალო	195	183	184	142	128	*incomplete secondary*

საგანმანათლებლო ჩაქლი, მოსწავლეთა (სტუდენტთა) რიცხოვნობა

(სასწავლო წლის დასაწყისისათვის)

Educational network, number of students
(at the beginning of school year)

	დაწესებულებების რიცხვი *Number of establishments*					მოსწავლეთა (სტუდენტთა) რიცხოვნობა, ათასი კაცი *Number of pupils (students), thsd.*				
	1990/ 91	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1990/ 91	1995/ 96	1996/ 97	1997/ 98	1998/ 99
სკოლამდელი დაწესებულებები *Pre-school establishments*	2479	1322	1253	1224	1241	200,0	81,9	83,1	74,9	74,2
სახელმწიფო ზოგადსაგან-მანათლებლო სკოლები *Public general education schools*	3686	3219	3201	3223	3237	878,2	710,9	717,8	721,8	722,5

გაგრძელება
Continued

	დაწესებულებების რიცხვი *Number of establishments*					მოსწავლეთა (სტუდენტთა) რიცხოვნობა, ათასი კაცი *Number of pupils (students), thsd.*				
	1990/ 91	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1990/ 91	1995/ 96	1996/ 97	1997/ 98	1998/ 99
დაწყებითი პროფესიული, სახელობო სასწავლებლები *Primary vocational schools*	159	118	110	99	98	42,2	19,4	19,6	17,8	18,9
სახელმწიფო საშუალო სპეციალური სასწავლებლები *Public specialized secondary schools*	87	77	77	81	83	42,9	26,9	27,0	30,7	32,4
არასახელმწიფო საერო (ფასიანი) საშუალო სპეციალური სასწავლებლები *Private specialized secondary schools*	-	13	38	47	58	-	2,2	5,1	5,2	7,2
სახელმწიფო უმაღლესი სასწავლებლები *Public higher educational establishments*	19	23	21	23	24	103,9	82,2	86,5	87,3	90,1
არასახელმწიფო საერო (ფასიანი) უმაღლესი სასწავლებლები *Private higher educational establishments*	...	109	121	159	154	-	42,0	43,0	40,2	38,3

გაგრძელება
Continued

	დაწესებულებების რიცხვი *Number of establishments*					მოსწავლეთა (სტუდენტთა) რიცხოვნობა, ათასი კაცი *Number of pupils (students), thsd.*				
	1990/ 91	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1990/ 91	1995/ 96	1996/ 97	1997/ 98	1998/ 99
ასპირანტურის მქონე დაწესებულებები *Establishments with postgraduate studies*	61	63	64	66	66	1,6	1,7	1,8	1,9	1,8

მოსწავლეთა (სტუდენტთა) რიცხოვნობა მოსახლეობის 10000 კაცზე გაანგარიშებით

(სასწავლო წლის დასაწყისისათვის)

Number of students per 10000 of population
(at the beginning of school year)

წლები *Years*	მოსწავლეთა, სტუდენტთა რიცხოვნობა *Number of students*		
	ზოგადსაგანმანათლებლო სკოლებში *in public general education schools*	საშუალო სპეციალურ სასწავლებლებში *in specialized secondary schools*	უმაღლეს სასწავლებლებში *in higher educational establishments*
1990/91	1607	78	190
1991/92	1535	74	188
1992/93	1360	76	228
1993/94	1338	48	168
1994/95	1308	60	251
1995/96	1313	54	229
1996/97	1322	59	238
1997/98	1327	65	234
1998/99	1329	73	236

სპეციალისტების გამოშვება მოსახლეობის 10 000 კაცზე გაანგარიშებით

(სასწავლო წლის დასაწყისისათვის)

Graduates per 10000 of population
(at the beginning of school year)

წლები *Years*	სპეციალისტების მომზადება *Graduates*	
	საშუალო სპეციალურ სასწავლებლებში *in specialized secondary schools*	უმაღლეს სასწავლებლებში *in higher educational establishments*
1990/91	26	30
1991/92	24	29
1992/93	20	26
1993/94	20	27
1994/95	16	29
1995/96	12	34
1996/97	14	38
1997/98	13	40
1998/99	16	40

სკოლამდელი დაწესებულებები

(წლის ბოლოსათვის)

Pre-school establishments
(at the end of year)

	1990	1995	1996	1997	1998
სკოლამდელი დაწესებულებები – სულ *Pre-school establishments - total*	2479	1322	1253	1224	1241
მათ შორის: *of which:*					
საბავშვო ბაღები *kindergartens*	1019	629	622	626	660
ბაგა-ბაღები *nurseries-kindergartens*	1379	680	619	587	567
ბაგები *nurseries*	81	13	12	11	14
ბავშვთა რიცხოვნობა *Number of children*					
სულ, ათასი *total, thsd.*	200,0	81,9	83,1	74,9	74,2
100 ადგილზე *per 100 places*	99	63	65	60	60

სახელმწიფო ზოგადსაგანმანათლებლო სკოლები

(სასწავლო წლის დასაწყისისათვის)

Public general education schools
(at the beginning of school year)

	1990/91	1995/96	1996/97	1997/98	1998/99	
სახელმწიფო ზოგადსაგანმანათლებლო სკოლების რიცხვი	3686	3219	3201	3223	3237	*Number of public general education schools*
მათ შორის:						*of which:*
დღის სკოლები	3647	3187	3168	3192	3197	*day schools*
საღამოს (ცვლიანი) სკოლები	39	32	33	31	40	*evening schools*
მოსწავლეთა რაოდენობა, ათასი	878,2	710,9	717,8	721,8	722,5	*Number of students, thsd.*
მათ შორის:						*of which in:*
დღის სკოლებში	869,1	703,1	711,2	716,4	717,7	*day schools*
საღამოს (ცვლიან) სკოლებში	9,1	7,8	6,6	5,4	4,8	*evening (shift-type) schools*

დღის ზოგადსაგანმანათლებლო სკოლები

(სასწავლო წლის დასაწყისისათვის)

Day-time general education schools
(at the beginning of school year)

	1990/91	1995/96	1996/97	1997/98	1998/99	
სკოლების რიცხვი - სულ	3647	3187	3168	3192	3197	*Number of schools - total*
მათ შორის:						*of which:*
დაწყებითი	876	754	756	757	793	*primary schools*
არასრული საშუალო	749	701	718	781	745	*incomplete secondary schools*
საშუალო	2000	1716	1677	1637	1641	*secondary schools*
აქედან:						*thereof:*
გიმნაზია	16	43	43	43	37	*gymnasiums*
ლიცეუმი	-	-	27	29	27	*lyceums*
გონებრივი და ფიზიკური ნაკლის მქონე ბავშვთა სკოლები	20	16	17	17	18	*schools for mentally and physically retarded children*

გაგრძელება
Continued

	1990/91	1995/96	1996/97	1997/98	1998/99	
სანატორიული სკოლა	2	-	-	-	-	*sanatorium type schools*
მოსწავლეთა რაოდენობა, ათასი	869,1	703,1	711,1	716,4	717,7	*Number of students, thsd.*
მათ შორის:						*of which in:*
დაწყებით სკოლებში	14,9	17,0	17,8	18,0	20,9	*primary schools*
არასრულ საშუალო სკოლებში	58,2	81,2	85,5	99,8	95,5	*incomplete secondary schools*
საშუალო სკოლებში	793,3	603,3	606,1	596,8	599,4	*secondary schools*
აქედან:						*of which in:*
გიმნაზიებში	7,3	25,9	28,0	31,9	29,0	*gymnasiums*
ლიცეუმებში	-	-	9,8	10,2	10,6	*lyceums*
გონებრივი და ფიზიკური ნაკლის მქონე ბავშვთა სკოლებში	2,7	1,6	1,7	1,8	1,9	*in schools for mentally and physically retarded children*

დღის ზოგადსაგანმანათლებლო სკოლების მოსწავლეთა განაწილება სწავლების ენების მიხედვით

(ფიზიკური და გონებრივი განვითარების ნაკლის მქონე სკოლების მოსწავლეთა გარეშე; სასწავლო წლის დასაწყისისათვის)

Distribution of day-time general educational school students by language of instruction
(excluding schools for mentally and physically retarded children; for the beginning of school year)

	1990/91	1995/96	1996/97	1997/98	1998/99	
მოსწავლეები - სულ, ათასი	866,4	701,4	709,5	714,6	715,8	*Number of students - total, thsd.*
მათ შორის სწავლობენ:						*of which are instructed in:*
ქართულ ენაზე	595,6	582,1	591,9	600,0	603,1	*Georgian*
რუსულ ენაზე	180,3	51,8	46,8	44,4	43,7	*Russian*
აზერბაიჯანულ ენაზე	48,9	40,0	42,5	41,9	41,0	*Azeri*
სომხურ ენაზე	33,2	27,3	27,9	28,0	27,8	*Armenian*
აფხაზურ ენაზე	5,4	...	...	...	...	*Abkhaz*

გაგრძელება
Continued

	1990/91	1995/96	1996/97	1997/98	1998/99	
ოსურ ენაზე	2,8	0,2	0,3	0,2	0,2	*Ossetian*
პროცენტობით მოსწავლეთა საერთო რაოდენობასთან	100	100	100	100	100	*In per cent to the total number of students*
ქართულ ენაზე	68,7	83,0	83,4	83,9	84,3	*Georgian*
რუსულ ენაზე	20,8	7,4	6,6	6,2	6,1	*Russian*
აზერბაიჯანულ ენაზე	5,6	5,7	6,0	5,9	5,7	*Azeri*
სომხურ ენაზე	3,8	3,9	3,9	3,9	3,9	*Armenian*
აფხაზურ ენაზე	0,6	...	...	...	...	*Abkhaz*
ოსურ ენაზე	0,3	0,03	0,1	0,1	0,03	*Ossetian*

დღის ზოგადსაგანმანათლებლო სკოლების პედაგოგთა უმაღლესი განათლების მიხედვით

(გონებრივი და ფიზიკური განვითარების ნაკლის მქონე სკოლების გარეშე; 1 ოქტომბრის მდგომარეობით)

Distribution of day-time general educational school teachers by language of instruction (excluding schools for mentally and physically retarded children; for the beginning of school year)

	1990	1995	1996	1997	1998	
სულ პედაგოგები, ათასი კაცი	100,4	83,89	71,4	70,2	71,7	*Total number of teachers, thsd.*
მოსწავლეთა რიცხოვნობა 1 მასწავლებელზე	8,7	8,4	10,0	10,2	10,1	*Number of students per teacher*
ძირითად შტატში მომუშავე პედაგოგები, ათასი კაცი	92,5	797,7	69,2	68,8	69,3	*Number of teachers working excluding those combining jobs, thsd.*
მათ შორის აქვს განათლება:						*of those having education:*
უმაღლესი, სულ	77,7	67,0	59,2	59,1	60,7	*higher, thsd.*
დაუმთავრებელი უმაღლესი	4,7	4,5	3,2	2,7	2,2	*Incomplete higher, thsd.*
სპეციალური არაპედაგოგიური	3,5	8,2	5,4	5,4	5,2	*specialized non-pedagogical*
ძირითად შტატში მომუშავეთაგან ქალები	68,1	62,8	55,8	55,8	56,3	*of those working without combining jobs - women*

სკოლისგარეშე დაწესებულებები

(წლის ბოლოსათვის)

Children's out-of-school institutions

(end of year)

	დაწესებულებათა რიცხვი *Number of institutions*			წრეების რიცხვი *Number of hobby groops*			მონაწილეთა რიცხვი *Number of participants*		
	1990	1996	1997	1990	1996	1997	1990	1996	1997
სულ სკოლისგარეშე დაწესებულებები *Out-of-school institutions - total*	135	102	94	5425	3589	3849	83241	53140	50675
მათ შორის: of *which*:									
მოსწავლე ახალგაზრდობის სასახლეები და სახლები *schoolchildren's palaces and houses*	82	71	71	3710	2948	3148	58962	43234	42934
ნორჩ ტექნიკოსთა სადგურები *technical creativity centres*	21	14	11	875	359	374	10439	5089	3586
ნორჩ ნატურალისტთა სადგურები *biological centers*	16	7	5	455	93	104	6587	1635	1395
ნორჩ ტურისტთა სადგურები *tourism centers*	5	5	4	147	89	67	2202	1450	1330
მოსწავლე ახალგაზრდობის პარკები *schcoolchildren's parks*	6	2	...	114	7	...	2101	239	...
მოსწავლე ახალგაზრდობის ფოლკლორის სასახლეები *schoolchildren's folklore palaces*	5	2	2	124	93	128	2950	1493	1074
სამხატვრო სკოლა *art schools*	...	...	1	...	...	28	...	...	356

ბავშვთა სახლები

Child care institutions

	1995	1996	1997	1998	
ბავშვთა სახლები – სულ	12	13	13	12	*Child's homes - total*
მათ შორის:					*of which:*
განათლების სამინისტროს სისტემის	9	9	9	9	*of the Ministry of Education*
ჯანდაცვის სამინისტროს სისტემის	3	3	3	2	*of the Ministry of Health*
სხვა	-	1	1	1	*others*
მათში აღსაზრდელთა რაოდენობა – სულ	647	615	852	965	*Inmates in them - total*
მათ შორის:					*of which:*
განათლების სამინისტროს სისტემის	544	407	664	727	*of the Ministry of Education*
ჯანდაცვის სამინისტროს სისტემის	103	152	124	168	*of the Ministry of Health*
სხვა	-	56	64	70	*others*
სკოლა-ინტერნატები – სულ	51	53	47	44	*Boarding schools - total*
მათ შორის:					*of which:*
სკოლა-ინტერნატები	37	39	33	29	*Boarding schools*
ფიზიკური და გონებრივი განვითარების ნაკლის მქონე ბავშვთა სკოლა-ინტერნატები	14	14	14	15	*Boarding schools for mentally and physically retarded children*
მათში აღსაზრდელთა რაოდენობა – სულ	7333	7688	7803	7028	*Inmates in them:*
მათ შორის:					*of which:*
სკოლა-ინტერნატებში	6205	6200	6252	5387	*Boarding schools*
ფიზიკური და გონებრივი განვითარების ნაკლის მქონე ბავშვთა სკოლა-ინტერნატებში	1128	1488	1551	1641	*Boarding schools for mentally and physically retarded children*

დაწყებითი პროფესიული და სახელობო სასწავლებლები

(სასწავლო წლის დასაწყისისათვის)

Vocational schools
(at the beginning of school year)

წლები *Years*	სასწავლებლების რიცხვი *Number of schools*	მათ შორის მოსწავლეები, ათასი კაცი *Enrollment, thsd.*	მოსწავლეთა მიღება, ათასი კაცი *Number of students admitted, thsd.*	მომზადებულია (გამოშვებულია) კვალიფიციური მუშა, ათასი კაცი *Number of graduates from vocational schools (skilled workers), thsd.*
1990	159	42,2	25,1	30,6
1991	152	36,4	23,9	26,4
1992	147	34,4	22,4	21,5
1993	136	28,2	16,7	18,9
1994	128	22,2	12,1	16,7
1995	118	19,4	11,4	13,0
1996	110	17,8	12,8	11,3
1997	99	19,6	11,1	10,1
1998	89	18,9	7,7	8,9

სახელმწიფო საშუალო სპეციალური სასწავლებლები და მათში მოსწავლეთა რიცხოვნობა სწავლების სახეების მიხედვით

(სასწავლო წლის დასაწყისისათვის)

Public secondary specialized schools and enrollment by type of study
(at the beginning of school year)

წლები *Years*	საშუალო სპეციალური სასწავლებლების რიცხვი *Number of secondary specialized schools*	მოსწავლეთა რიცხოვნობა *Number of students*			
		სულ *total*	მათ შორის სწავლობენ განყოფილებებზე: *of which:*		
			დღის *full-time*	საღამოს *evening*	დაუსწრებელზე *by correspondence*
1990/91	87	42863	32943	1282	8638
1991/92	83	40367	31234	813	8320
1992/93	77	34459	25781	441	8237

გაგრძელება
Continued

წლები *Years*	საშუალო სპეციალური სასწავლებლების რიცხვი *Number of secondary specialized schools*	მოსწავლეთა რიცხოვნობა *Number of students*			
		სულ *total*	მათ შორის სწავლობენ განყოფილებებზე: *of which:*		
			დღის *full-time*	საღამოს *evening*	დაუსწრებელზე *by correspondence*
1993/94	76	30153	22515	340	7298
1994/95	76	25906	19885	235	5786
1995/96	77	26907	20912	112	5883
1996/97	77	27009	21764	114	5131
1997/98	81	30700	25497	-	4508
1998/99	83	32406	27968	-	4458

არასახელმწიფო საერო (ფასიანი) საშუალო სპეციალური სასწავლებლები

(სასწავლო წლის დასაწყისისათვის)

Non-state secondary specialized schools and enrollment by type of study
(at the beginning of school year)

წლები *Years*	სასწავლებლების რიცხვი *Number of schools*	მოსწავლეთა რიცხოვნობა *Number of students*	
		სულ *total*	მათ შორის დღის განყოფილებაზე *of which full-time*
1992/93	56	6763	6560
1994/95	40	6332	6332
1995/96	13	2225	2225
1996/97	38	5144	5144
1997/98	47	5203	5203
1998/99	58	7179	7179

საშუალო სპეციალური სასწავლებლები და მათში მოსწავლეთა რიცხოვნობა სასწავლებლების დარგობრივი ჯგუფების მიხედვით

(სასწავლო წლის დასაწყისისათვის)

Secondary specialized schools and enrollment by branch groups of schools (at the beginning of school year)

	სახელმწიფო სასწავლებლები *Public schools*				არასახელმწიფო საერო (ფასიანი) სასწავლებლები *Non-state (payed) schools*		
	1990/91	1995/96	1997/98	1998/99	1995/96	1997/98	1998/99
სულ სასწავლებლები *Number of schools - total*	87	77	81	83	13	47	58
მათ შორის: *of which:*							
მრეწველობისა და მშენებლობის *industry and construction*	21	22	5	6	-	1	1
ტრანსპორტისა და კავშირგაბმულობის *transport and communications*	3	2	5	5	-	8	-
სოფლის მეურნეობის *agriculture*	20	16	4	4	1	-	1
ეკონომიკისა და სამართლის *economics amd law*	6	5	19	13	-	3	3
ჯანმრთელობის დაცვის, ფიზიკური კულტურისა და სპორტის *public health, physical training and sports*	12	12	13	13	11	30	45
განათლების (პედაგოგიური სასწავლებლები) *education*	7	3	4	2	-	1	2
მრავალპროფილიანი სასწავლებლები *multybranch schools*	-	-	12	20	-	3	2
ხელოვნებისა და კინემატოგრაფიის *fine arts and cinematography*	18	17	19	20	1	1	4
მოსწავლეთა რიცხოვნობა *Number of students*	42863	26907	30005	32406	2225	5203	7179

გაგრძელება
Continued

	სახელმწიფო სასწავლებლები *Public schools*				არასახელმწიფო (ფასიანი) საერო სასწავლებლები *Non-state (payed) schools*		
	1990/91	1995/96	1997/98	1998/99	1995/96	1997/98	1998/99
მათ შორის სასწავლებლებში: *including those studying in schools of:*							
მრეწველობისა და მშენებლობის *industry and construction*	16971	8544	1546	2336	-	141	53
ტრანსპორტისა და კავშირგაბმულობის *transport and communications*	2722	749	2265	2562	-	340	-
სოფლის მეურნეობის *agriculture*	7777	4289	934	976	76	-	20
ეკონომიკისა და სამართლის *economics amd law*	6355	3950	7659	6293	-	123	328
ჯანმრთელობის დაცვის, ფიზიკური კულტურისა და სპორტის *public health, physical training and sports*	3972	4993	5608	6219	1692	4253	6283
განათლების *education*	1836	1876	4248	3586	-	182	213
მრავალპროფილიანი სასწავლებლები *multybranch schools*	-	-	4941	7384	-	140	178
ხელოვნებისა და კინემატოგრაფიის *fine arts and cinematography*	3230	2506	2804	3050	457	24	104

სახელმწიფო უმაღლესი სასწავლებლები და მათში სტუდენტთა რიცხოვნობა სწავლების სახეების მიხედვით

(სასწავლო წლის დასაწყისისათვის)

Public higher education institutions and enrollment by type of study
(at the beginning of school year)

წლები *Years*	სასწავლებლების რიცხვი *Number of institutions*	მოსწავლეთა რიცხოვნობა, ათასი კაცი *Number of students, thsd.*			
		სულ *total*	მათ შორის სწავლობენ განყოფილებებზე: *of which:*		
			დღის *full-time*	საღამოს *evening*	დაუსწრებელზე *by correspondence*
1990/91	19	103,9	64,9	13,2	25,8
1991/92	19	102,8	61,6	10,9	30,4
1992/93	18	90,9	53,2	8,9	28,9
1993/94	23	91,1	50,7	8,5	31,8
1994/95	23	94,6	55,5	6,2	32,9
1995/96	23	82,2	48,5	3,4	30,3
1996/97	21	86,5	54,7	2,6	29,2
1997/98	23	87,3	58,8	1,7	26,7
1998/99	24	90,1	62,2	1,4	26,5

არასახელმწიფო საერო (ფასიანი) უმაღლესი სასწავლებლები

(სასწავლო წლის დასაწყისისათვის)

Non-state higher education institutions and enrollment by type of study
(at the beginning of school year)

	სასწავლებლების რიცხვი *Number of institutions*	სტუდენტთა რიცხოვნობა, ათასი კაცი *Number of students, thsd.*		
		სულ *total*	მათ შორის განყოფილებებზე *of which:*	
			დღის *full-time*	დაუსწრებელი *by correspondence*
1991/92	48	10,6	10,4	0,2
1992/93	131	33,1	31,0	2,0
1994/95	93	41,3	37,8	3,5
1995/96	109	42,0	38,9	3,1
1996/97	122	42,9	39,5	3,3
1997/98	159	40,2	37,2	3,0
1998/99	154	38,3	37,3	1,0

უმაღლესი სასწავლებლები და მათში სტუდენტთა რიცხოვნობა სასწავლებლების დარგობრივი ჯგუფების მიხედვით

(სასწავლო წლის დასაწყისისათვის)

Higher education institutions and enrollment by branch groups of institutions
(at the beginning of school year)

	სახელმწიფო სასწავლებლები *Public institutions*				არასახელმწიფო საერო (ფასიანი) სასწავლებლები *Non-state (payed) institutions*		
	1990/91	1995/96	1997/98	1998/99	1995/96	1997/98	1998/99
სულ სასწავლებლები *Number of institutions*	19	23	23	24	109	159	154
მათ შორის: *of which:*							
მრეწველობისა და მშენებლობის *industry and construction*	2	2	2	2	10	13	10
ტრანსპორტისა და კავშირგაბმულობის *transport and communications*	-	1	1	1	1	-	-
სოფლის მეურნეობის *agriculture*	3	3	3	3	10	13	9
ეკონომიკისა და სამართლის *economics amd law*	1	2	3	4	30	44	43
ჯანმრთელობის დაცვის, *public health*	1	1	1	1	17	21	28
ფიზიკური კულტურისა და სპორტის *physical training and sports*	1	1	1	1	-	-	-
განათლების *education*	8	8	7	7	38	57	55
ხელოვნებისა და კინემატოგრაფიის *fine arts and cinematography*	3	4	4	4	3	11	9
სხვა *others*	-	1	1	1	-	-	-
სტუდენტთა რიცხოვნობა – სულ, კაცი *Number of students, total*	103893	82230	87258	90054	42006	40162	38272
მათ შორის სასწავლებლებში: *of which in institutions:*							

გაგრძელება
Continued

	საჯარო სასწავლებლები *Public institutions*				არასაჯარო (ფასიანი) სასწავლებლები *Non-state (payed) institutions*		
	1990/91	1995/96	1997/98	1998/99	1995/96	1997/98	1998/99
მრეწველობისა და მშენებლობის *industry and construction*	35182	19884	16898	17589	2942	3538	1557
ტრანსპორტისა და კავშირგაბმულობის *transport and communications*	-	1301	1437	1527	145	-	-
სოფლის მეურნეობის *agriculture*	12579	9600	10923	9809	1866	2256	1784
ეკონომიკისა და სამართლის *economics amd law*	2449	2815	4764	5246	10324	10334	11297
ჯანმრთელობის დაცვის *public health*	6331	3447	3408	3686	3967	5531	6716
ფიზიკური კულტურისა და სპორტის *physical training and sports*	2046	1466	1555	1765	-	-	-
განათლების *education*	42048	40696	45206	47370	22514	17416	15158
ხელოვნებისა და კინემატოგრაფიის *fine arts and cinematography*	3258	2870	2860	2814	248	1087	1760
სხვა *others*	-	151	207	248	-	-	-

უმაღლესი სასწავლებლების პროფესორ-მასწავლებელთა რიცხოვნობა

(სასწავლო წლის დასაწყისისათვის, კაცი)

Number of professors in higher education institutions
(at the beginning of school year; persons)

	სახელმწიფო სასწავლებლები *Public institutions*				არასახელმწიფო (ფასიანი) სასწავლებლები *Non-state institutions*		
	1990/91	1995/96	1997/98	1998/99	1995/96	1997/98	1998/99
პროფესორ-მასწავლებელთა რიცხოვნობა - სულ *Number of professors - total*	10277	9271	10430	13548	8809	9144	11166
მათ შორის: *of which:*							
შტატით *full-time*	9370	9181	8214	9947	2328	2663	2496
შემთავსებელი *combining work*	907	90	2216	1501	6431	6481	3747
პროფესორ-მასწავლებელთა საერთო რიცხვიდან აქვს სამეცნიერო ხარისხი: *Professors with scientific degree:*							
მეცნიერებათა დოქტორის *doctor of science*	588	752	847	1519	368	1016	1249
მეცნიერებათა კანდიდატის *candidate of sciences*	3882	2443	3406	4531	645	2589	3107

სამეცნიერო დაწესებულებების რიცხვი

Number of scientific institutions

	1990	1995	1996	1997	1998
სამეცნიერო დაწესებულებები – სულ *Sientific institutions, total*	131	124	129	129	129
მათ შორის: *of which:*					
უმაღლესი სასწავლებლები *higher education establishments*	12	14	14	12	18
სამეცნიერო-კვლევითი ინსტიტუტები *research and development unstitutions*	115	107	112	114	111
საპროექტო-საკონსტრუქტორო ორგანიზაციები *prospecting and surveying organizations*	4	3	3	3	...

მეცნიერ-მუშაკთა რიცხოვნობა სამეცნიერო დაწესებულებებში

(ათასი კაცი)

Number of scientific personnel
(thsd. persons)

	1990		1995		1997		1998	
	სულ *total*	მ.შ. ქალები *o.w. women*	სულ *total*	მ.შ. ქალები *o.w. women*	სულ *total*	მ.შ. ქალები *o.w. women*	სულ *total*	მ.შ. ქალები *o.w. women*
მეცნიერ-მუშაკები – სულ *Sientific personnel – total*	25,2	12,9	18,1	7,7	17,8	7,6	16,8	8,0
მათ შორის აქვთ სამეცნიერო ხარისხი: *of which having scientific degree:*								
მეცნიერებათა დოქტორის *doctor of science*	1,3	0,2	1,4	0,3	1,5	0,2	1,5	0,3
მეცნიერებათა კანდიდატის *candidate of science*	8,0	3,3	6,2	2,6	6,0	2,6	5,9	2,6

მეცნიერ-მუშაკთა რიცხოვნობა მეცნიერებათა დარგების მიხედვით

(კაცი)

Number of scientific personnel by science fields
(person)

	1995	1996	1997	1998	
მეცნიერ-მუშაკები – სულ	18063	18831	17762	16815	*Scientific personnel – total*
მათ შორის მეცნიერებათა დარგების მიხედვით:					*of which by science fields:*
ფიზიკა-მათემატიკური	2148	2216	1958	1955	*physics and mathematics*
ქიმიური	1068	1152	1073	998	*chemistry*
ბიოლოგიური	1778	1926	1793	1708	*biology*
გეოლოგია-მინერალოგიის	763	796	716	597	*grology andmineralogy*
ტექნიკური	2871	2631	2571	2225	*engineering*
სასოფლო-სამეურნეო	1124	1167	1058	973	*agriculture*

გაგრძელება
Continued

	1995	1996	1997	1998	
ისტორიული	772	1199	1167	1160	*history*
ეკონომიკური	1194	1094	963	923	*economics*
ფილოსოფიური	422	450	366	453	*philosophy*
ფილოლოგიური	1574	1750	1635	1583	*philology*
გეოგრაფიული	574	519	480	485	*geography*
იურიდიული	205	216	209	198	*law*
პედაგოგიური	756	589	521	817	*pedagogics*
სამედიცინო	1584	1530	1755	1513	*medicine*
ფარმაცევტული	79	75	76	73	*pharmacy*
ვეტერინარული	194	178	189	178	*veterinary*
ხელოვნებათმცოდნეობის	218	565	247	236	*arts*
არქიტექტურის	23	75	24	21	*arcitecture*
ფსიქოლოგიური	277	217	208	200	*psychology*
სოციოლოგიური	212	235	395	151	*sociology*
სხვა	227	251	358	368	others

სამეცნიერო-ტექნიკური სამუშაოები

(ათასი ლარი)

Volume of research and development works
(thsd. laries)

	1995		1997		1998	
	სულ *Total*	მ.შ. საკუთარი ძალებით შესრულებული *of which carried out on own record*	სულ *Total*	მ. შ. საკუთარი ძალებით შესრულებული *of which carried out on own record*	სულ *Total*	მ. შ. საკუთარი ძალებით შესრულებული *of which carried out on own record*
შესრულებული სამუშაოს მოცულობა *Volume of research and development works*	2962,6	2836,0	21942,5	21400,4	17770,4	17363,9

გაგრძელება
Continued

წლები *Years*	სატელეფონო სადგურების რაოდენობა, ერთეული *Number of telephone stations, units*	სატელეფონო ქსელის ტელეფონის აპარატების რაოდენობა *Number of telephone units of general purpose network*		საქალაქთაშორისო ტაქსოფონების რაოდენობა, ერთეული *Number of public telephone booths for trunk calls, units*	რადიოსატრანსლაციო წერტილების რაოდენობა, ათასი *Number of sockets of rediffusion loudspeakers, thsd.*
		სულ, ათასი ცალი *total, thsd. units*	აქედან ბინის *of which home telephone units*		
1992	1002	722,1	519,4	204	488
1993	927	720,5	522,0	190	471
1994	826	606,6	470,1	79	356
1995	737	626,3	512,5	94	224
1996	738	567,4	468,0	93	294
1997	734	616,0	499,3	65	118
1998	518	628,4	485,2	68	113

საერთო სარგებლობის მიმოსვლის გზების სიგრძე სახეების მიხედვით

(წლის ბოლოსათვის; კმ)

Operational length of transport ways
(end of year; km)

წლები *Years*	რკინიგზა *Railway tracks*	მეტროპოლიტენი (ორმხრივი) *Metro (subway) tracks (two-way)*	ტრამვაი (ორმხრივი) *Tramway (two-way)*	ტროლეიბუსი (ორმხრივი) *Trolleybus (two-way)*	საერთო სარგებლობის საავტომობილო გზები *General purpose motor roads*
1980	1420	19	50	160	22196
1985	1465	23	50	215	21334
1990	1586	25	43	300	21599
1991	1586	25	43	337	21651
1992	1586	25	43	289	21601
1993	1586	25	43	281	21094
1994	1586	25	43	213	20738
1995	1586	25	41	289	20970
1996	1586	25	41	284	20298
1997	1586	25	36	311	20120
1998	1586	25	36	311	20215

კავშირგაბმულობისა და ფოსტის სამინისტროს დაქვემდებარებული საწარმოების საქმიანობის ძირითადი მაჩვენებლები

Main indicators of functioning of enterprises subordinated to the Ministry of Communication and Post of Georgia

წლები *Years*	სატელეფონო სადგურების რაოდენობა, ერთეული *Number of telephone stations, units*	სატელეფონო ქსელის ტელეფონის აპარატების რაოდენობა *Number of telephone units of general purpose network*		საქალაქთაშორისო ტაქსოფონების რაოდენობა, ერთეული *Number of public telephone booths for trunk calls, units*	რადიოსატრანსლაციო წერტილების რაოდენობა, ათასი *Number of sockets of rediffusion loudspeakers, thsd.*
		სულ, ათასი ცალი *total, thsd. units*	აქედან ბინის *of which home telephone units*		
1980	1026	434,7	235,6	152	620
1985	1050	542,7	319,4	286	729
1990	1101	705,5	517,6	658	742
91	1047	717,6	502,5	658	464

GLOBALIZATION and GOVERNANCE

In economic terms, African productivity has suffered because economic regimes tend to be tightly controlled and inefficiently managed by the state. This results in high trade barriers, and poor delivery of public services. It also means that corruption is widespread. Firms in the private sector are unable to compete internationally because they lack access to appropriate technology and information.

The agricultural sector in Africa has yet to experience a Green Revolution. Unlike the rest of the world, yields of basic food commodities have not increased significantly. Variable rainfall, highly weathered soils, disease and pests have taken their toll. Agricultural technologies developed in other climatic and ecological zones have not transferred well into the region. Inputs like fertilizer are often controlled by state monopolies and are not available to farmers at competitive prices. Fertilizer prices in the early 1990s, for example, were estimated to be two to four times higher in Africa than in Asia. The poor infrastructure restricts the ability to move goods, so that transportation and shipping costs remain prohibitive.

Africa's agricultural sector thus remains unable to generate a steady and inexpensive source of food for urban populations. Indeed, much of sub-Sahara's food supply is imported. Its urban centres remain small by international standards, and they have not provided the human capital necessary to fuel industrial expansion.

I challenge the foremost experts in the world to think through the barrier of low agricultural productivity in Africa. I implore the great philanthropic foundations—which have stimulated so much good and practical research on agriculture—to rise to this vital challenge.

In many African countries there are political obstacles to economic progress as well. I addressed these issues in a report to the Security Council in April 1998. They boil down to a "winner-takes-all" attitude to political competition, the control of society's wealth and resources, and to the power of patronage and the prerogatives of office. It is coupled in too many instances with appalling violations of fundamental rights and a readiness to resort to force to resolve disputes or hold on to power.

Only Africans, I concluded in that report, can break out of these vicious cycles. I am gratified that so many have chosen to do so, and that rulers who had perpetrated crimes against their own people are increasingly being held accountable for them. Yet inexplicably, even today, relatively few African governments show the necessary commitment to poverty reduction in their national economic and social policies.

We do have the chance to turn things around. There are many positive developments in Africa, and the international community has demonstrated a growing interest in assisting those African countries still afflicted by turmoil and tragedy. We must not let up now.

Building digital bridges

The world has entered the early phases of another technological revolution. We see it in the area of medicines and pharmaceuticals, and in biotechnology. These new fron-

In seizing the opportunities biotechnology presents, we must not neglect the inherent risks

The digital divide can—and will—be bridged

tiers raise both hopes and fears. Better health and greater food security are within our reach, but in seizing the opportunities biotechnology presents we must not neglect the inherent risks. In particular, we must ensure that free access is provided to the information compiled by researchers deciphering the genetic code. The genetic key to human life belongs to all humanity.

I wish to focus here on a technological shift that is already transforming social and economic life: the digital revolution. Fundamental changes are occurring in the communications and information industries, and at near-lightning speed (see figure 4).

It took 38 years for radio to reach 50 million people, and 13 years for television. The same number of people adopted the Internet in just four years. There were 50 pages on the World Wide Web in 1993; today there are more than 50 million. A mere 143 million people logged on to the Internet in 1998; by 2001 the number of users will climb to 700 million. The market for e-commerce was $2.6 billion in 1996; it is expected to grow to $300 billion by 2002. And the Internet already has a far wider range of applications than any previous tool of communication ever invented.

At present, a yawning digital divide still exists in the world. There are more computers in the United States of America than in the rest of the world combined. There are as many telephones in Tokyo as in all of Africa.

The digital divide can—and will—be bridged. Already, the city of Bangalore in India has become a dynamic hub of innovation, boasting more than 300 high-tech companies. India's software exports alone will exceed $4 billion this year—about 9 per cent

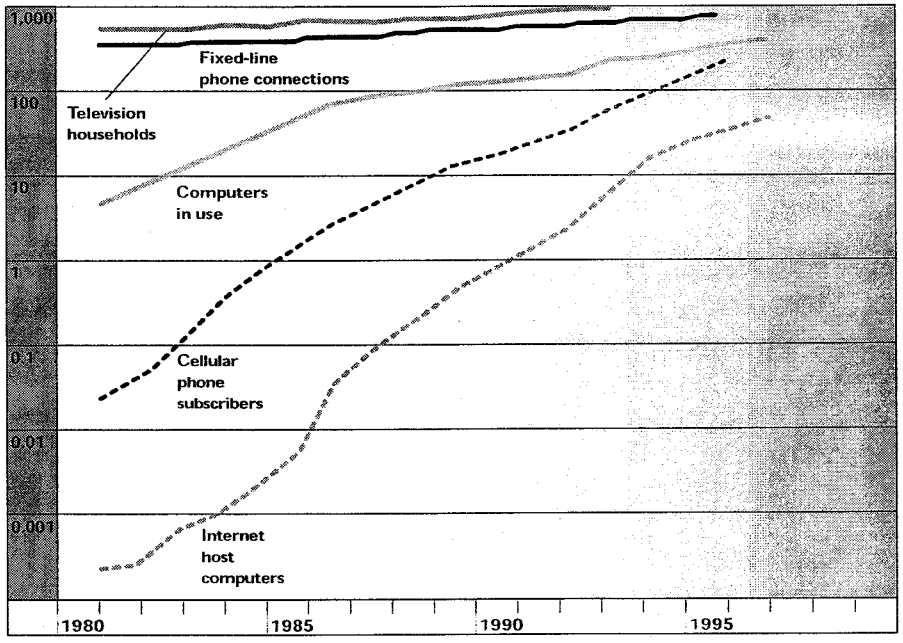


Figure 4
Growth of information technologies
(Millions)

Source: Worldwatch Institute, International Telecommunication Union 2000.

of India's total exports—and industry sources project that they will reach $50 billion by 2008 (see box 3.)

Costa Rica's economic growth surged to 8.3 per cent in 1999, the highest in Latin America, fuelled by exports from the microchip industry, which now accounts for 38 per cent of all exports. I could give many other examples of developing countries seizing the opportunity of this revolution. It holds great promise for economic growth and development, potentially for all countries.

To fully appreciate how the digital revolution can stimulate economic growth and development, we need to grasp several of its core features. First, it has created a brand new economic sector that simply did not exist before. As the countries at its forefront devote ever larger shares of their economies to this sector, a high-value space is opened up for others to occupy, and so on successively throughout the world economy. This, indeed, is how the so-called emerging economies first "emerged" when other sectors were vacated. Globalization facilitates such shifts.

Second, the capital that matters most in the digital revolution increasingly is intellectual capital. Hardware costs are declining. The shift from hardware to software as

The digital revolution has created a brand new economic sector that simply did not exist before

Box 3
India and the information revolution

No developing country has benefited more from the digital revolution than India, whose software industry is expected to increase about eightfold, to $85 billion, by 2008. The industry has generated a significant amount of employment and wealth, creating a new cadre of high-technology entrepreneurs. One Indian company, Infosys Technologies, has seen a tenfold increase in its value since it was listed on the United States Nasdaq stock exchange in March 1999.

The software revolution in India has been accelerated by foreign investment and assisted by economic liberalization and the creation of government-supported software technology parks. India also has a great number of globally mobile software professionals.

Indian companies have become world leaders in designing portals and web-based applications, and they have successfully sidestepped bureaucratic delays and outdated infrastructure by building their own telecommunications systems and beaming their software products by satellite around the world. Access to the Internet in India is also increasing rapidly and it is estimated that about 6 million people in India will be using the Internet by 2001, aided by the deregulation of the telecommunications and information technology sectors.

Yet India, like so many other countries, continues to face the challenge of the "digital divide". There remains a huge gap within the country between those who are part of the Internet revolution and those who are not. On the eve of India's fiftieth anniversary as a constitutional republic, the President of India warned that his country has "one of the world's largest reservoirs of technical personnel but also the world's largest number of illiterates, the largest number of people below the poverty line, and the largest number of children suffering from malnutrition."

India's success in embracing the Information Revolution is directly related to its success in producing large numbers of highly qualified technical and science graduates. The information networks these graduates are now building have a huge potential for spreading the benefits of education to the less fortunate.

The information technology sector can transform many if not most other sectors of economic and social activity

the cutting edge of the industry helps to overcome what has been a major impediment to development—the shortage of finance. It also improves the chances for poor countries to leapfrog some long and painful stages in the development process. Clearly, the requisite intellectual capital is not universally available, but it is far more widespread in the developing world and in the transition economies than is finance capital.

Third, the digital revolution, besides creating a new economic sector, is also a means to transform and enhance many other activities. Mauritius, for example, uses the Internet to position its textile industry globally. The UNCTAD Trade Point Programme allows participants to trade products on-line. The Government of Mali has established an intranet to provide more effective administrative services. And there are many other opportunities: for telemedicine and distance learning; for "virtual" banking coupled with microcredit; for checking weather forecasts before planting and crop prices before harvesting; for having the world's largest library at your fingertips; and so on. The information technology sector, in short, can transform many if not most other sectors of economic and social activity.

Finally, the core product in this sector—information—has unique attributes, not shared by others. The steel used to construct a building, or the boots worn by the workers constructing it, cannot be consumed by anyone else. Information is different. Not only is it available for multiple uses and users, it becomes more valuable the more it is used. The same is true of the networks that link up different sources of information. We in the policy-making world need to understand better how the economics of information differs from the economics of inherently scarce physical goods—and use it to advance our policy goals.

This is not to say that the transition will be easy for developing countries, especially the very poor. Lack of resources and skills is part of the problem, inadequate basic infrastructure another, illiteracy and language a third, and, of course, there are concerns about privacy and content. Technical solutions will become available for many of these problems, including wireless access, and even simple automatic translation programmes, enabling us to communicate and engage in e-commerce across language barriers.

For the immediate future, the individual consumer model of using information technology that prevails in the industrialized countries will prove too expensive for many developing ones. But that constraint, too, can be overcome. Public telecentres have been established in places from Peru to Kazakhstan. In Egypt, for example, the United Nations Development Programme has helped to create Technology Access Community Centres to bring the Internet and fax service to poor and rural areas. With help from civil society organizations and the private sector, we can expand these pilot programmes to reach even the remotest corners of the globe.

There is however no easy fix for the institutional impediments in many developing countries, above all unsupportive regulatory environments and exorbitant charges imposed by national authorities.

I encourage Member States to review their policies and arrangements in this area, to make sure that they are not denying their people the opportunities offered by the digital revolution.

As a concrete demonstration of how we can build bridges over digital divides, I am pleased to announce a new Health InterNetwork for developing countries.

This network will establish and operate 10,000 on-line sites in hospitals, clinics and public health facilities throughout the developing world. It aims to provide access to relevant up-to-date health and medical information, tailored for specific countries or groups of countries. The equipment and Internet access, wireless where necessary, will be provided by a consortium led by the *Web*MD Foundation, in cooperation with other foundation and corporate partners. Training and capacity-building in developing countries is an integral part of the project. The World Health Organization is leading the United Nations side in developing this initiative with external partners, including the United Nations Foundation.

I am also announcing a second digital bridges initiative: a United Nations Information Technology Service, which I propose to call UNITeS.

This will be a consortium of high-tech volunteer corps, including Net Corps Canada and Net Corps America, which United Nations Volunteers will help to coordinate. UNITeS will train groups in developing countries in the uses and opportunities of information technology, and stimulate the creation of additional digital corps in the North and South. We are currently exploring external sources of funding to support UNITeS.

We are all impoverished if the poor are denied opportunities to make a living

Demonstrating global solidarity

Creating an inclusive global market is one of humanity's central challenges in the twenty-first century. We are all impoverished if the poor are denied opportunities to make a living. And it is within our power to extend these opportunities to all.

The rich countries have an indispensable role to play by further opening their markets, by providing deeper and faster debt relief, and by giving more and better-focused development assistance.

Trade access

Despite decades of liberalization, the world trading system remains burdened with tariffs and quotas. Most industrialized countries still protect their markets for agricultural products heavily, and all protect textiles—the two sectors in which the developing countries have a recognized comparative advantage. Moreover, agricultural subsidies in the industrialized countries drive down world prices, hurting farmers in poor countries even more.

Everybody pays a high price for these practices. The estimated cost per job "saved" in industrialized countries ranges from $30,000 to $200,000, depending on the industry. Global economic losses from agricultural protectionism may be as high as $150 billion per year—about $20 billion of it in lost exports for developing countries.

Debt relief for heavily indebted poor countries must be an integral part of the international community's contribution to development

Developing countries also cause a great deal of damage to themselves, however, by their own protectionist policies, in agriculture and elsewhere.

Rather than trying to freeze declining industries in place, which always fails in the long run, political leaders should make the case for upgrading skills through education and training, and for providing adjustment assistance.

The tenth session of the United Nations Conference on Trade and Development, held recently in Bangkok, highlighted the need for better market access for the agricultural and industrial products exported by the least developed countries. That would be particularly helpful to sub-Saharan Africa.

I urge the industrialized countries to consider granting duty-free and quota-free access for essentially all exports from the least developed countries—and to be prepared to endorse that commitment at the Third United Nations Conference on the Least Developed Countries in March 2001.

A related issue of trade linkages has emerged in recent years. I refer to the desire of some to make trade liberalization conditional on the developing countries' meeting certain standards in the areas of labour, the environment and human rights. This issue must be handled with great care so that it does not become yet another pretext for protectionism.

I propose a different course. First, in most of these areas agreements already exist on universal values and common standards—the fruit of many conferences and long negotiations. What is needed now is for states to live up to their obligations, and for the relevant United Nations agencies to be given the resources and support to help them. If that means that the world should have a more robust global environmental organization, for example, or that the International Labour Organization needs to be strengthened, then let us consider those possibilities.

Second, global companies must play a leadership role. At relatively little if any cost to themselves, they can, in their own corporate domains, apply good practices everywhere they operate. This would have a beneficial demonstration effect throughout the world. That is why I have invited the business community to join me in a "Global Compact" to enact in their own corporate practices a set of core values in three areas: labour standards, human rights and the environment (see box 4). This initiative has been endorsed by a wide variety of business associations, labour groups and non-governmental organizations—and I hope to announce soon the first business leaders who are joining us to make the Global Compact an everyday reality.

Debt relief

High levels of external debt are a crushing burden on economic growth in many of the poorest countries. Debt servicing requirements in hard currency prevent them from making adequate investments in education and health care, and from responding effectively to natural disasters and other emergencies. Debt relief for those heavily indebted poor countries must, therefore, be an integral part of the international community's contribution to development.

საქართველო – მთელი ქვეყნის მასშტაბით კომპიუტერული/ინტერნეტის ბაზრის მიმოხილვა

კითხვარი

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აგვისტო, 2000

ძირითადი მითითებანი:

1) გთხოვთ გაითვალისწინოთ ის გარემოება, რომ შესაძლებელია ზოგიერთმა რესპონდენტმა განსაკუთრებული მეგობრული დამოკიდებულება არ გამოავლინოს. არც ერთ შემთხვევაში არ დაკარგოთ სიმშვიდე; გახსოვდეთ, რომ ამ საქმიანობისათვის თქვენ შესაბამის ანაზღაურებას იღებთ, რესპონდენტი კი - არა.
2) **გთხოვთ, ენერგიულად და მაქსიმალური მონდომებით მიუდგეთ საქმეს. ეს საკმაოდ მნიშვნელოვანი პროექტია, რომელიც დიდ სარგებლობას მოუტანს საქართველოს. ეცადეთ, რესპონდენტსაც გაუზიაროთ ეს სულისკვეთება და მისი ყურადღება გაამახვილეთ იმ ფაქტზე, რომ იგი ამ პროცესის აქტიურ მონაწილეს წარმოადგენს.**
3) ეცადეთ რესპონდენტმა თავისუფლად იგრძნოს თავი.
4) წარუდგინეთ მას თქვენი თავი, მიუთითეთ თქვენი სხვა საქმიანობის შესახებ და აუხსენით გასაუბრების მიზანი.
5) ხაზი გაუსვით იმ გარემოებას, რომ სრულად იქნება დაცული მისი პასუხების კონფიდენციალურობა.
6) რესპონდენტს შეუქმენით გულახდილი საუბრის პირობები.
7) მიეცით დრო პასუხის მოსაფიქრებლად.
8) ნუ წამოიწყებთ საუბარს პოლიტიკაზე.
9) ისაუბრეთ გარკვევით - ადვილად გასაგებ ენაზე.
10) იყავით მომთმენი.
11) გასაუბრება დაამთავრეთ მეგობრული ტონით.
12) ჰკითხეთ, ხომ არ დაამატებდა რამეს გასაუბრებაზე განხილულ საკითხებს.
13) კიდევ ერთხელ დაუდასტურეთ, რომ დაცული იქნება მისი პასუხების კონფიდენციალურობა.

[გამსაუბრებლის შესავალი განცხადების ნიმუში]

საღამო მშვიდობისა. მე გახლავართ ---------- (გვარი, სახელი). საქართველოს განათლების სამინისტროსა და საქართველო-ამერიკის ერთობლივი კომპანიის (iworld.ge) თხოვნით მსურს მოგმართოთ რამოდენიმე შეკითხვით კომპიუტერებთან, ინტერნეტის მომსახურებასთან და ჩვენს სკოლებთან დაკავშირებულ საკითხებზე. ამერიკის შეერთებული შტატების ვაჭრობისა და განვითარების სააგენტოს დახმარებით განათლების სამინისტრომ განიზრახა პროგრამის განხორციელება, რომლის საშუალებითაც საქართველოს სკოლების მოსწავლე-ახალგაზრდობას მიეცემა სკოლის საათებში კომპიუტერებით და ინტერნეტის ქსელით სარგებლობის შესაძლებლობა. ამ გამოკითხვის ძირითადი

ძირითადი მითითებანი:

1) გთხოვთ გაითვალისწინოთ ის გარემოება, რომ შესაძლებელია ზოგიერთმა რესპონდენტმა განსაკუთრებული მეგობრული დამოკიდებულება არ გამოავლინოს. არც ერთ შემთხვევაში არ დაკარგოთ სიმშვიდე; გახსოვდეთ, რომ ამ საქმიანობისათვის თქვენ შესაბამის ანაზღაურებას იღებთ, რესპონდენტი კი - არა.

2) გთხოვთ, ენერგიულად და მაქსიმალური მონდომებით მიუდგეთ საქმეს. ეს საკმაოდ მნიშვნელოვანი პროექტია, რომელიც დიდ სარგებლობას მოუტანს საქართველოს. ეცადეთ, რესპონდენტსაც გაუზიაროთ ეს სულისკვეთება და მისი ყურადღება გაამახვილეთ იმ ფაქტზე, რომ იგი ამ პროცესის აქტიურ მონაწილეს წარმოადგენს.

3) ეცადეთ რესპონდენტმა თავისუფლად იგრძნოს თავი.

4) წარუდგინეთ მას თქვენი თავი, მიუთითეთ თქვენი სხვა საქმიანობის შესახებ და აუხსენით გასაუბრების მიზანი.

5) ხაზი გაუსვით იმ გარემოებას, რომ სრულად იქნება დაცული მისი პასუხების კონფიდენციალურობა.

6) რესპონდენტს შეუქმენით გულახდილი საუბრის პირობები.

7) მიეცით დრო პასუხის მოსაფიქრებლად.

8) ნუ წამოიწყებთ საუბარს პოლიტიკაზე.

9) ისაუბრეთ გარკვევით - ადვილად გასაგებ ენაზე.

10) იყავით მომთმენი.

11) გასაუბრება დაამთავრეთ მეგობრული ტონით.

12) ჰკითხეთ, ხომ არ დაამატებდა რამეს გასაუბრებაზე განხილულ საკითხებს.

13) კიდევ ერთხელ დაუდასტურეთ, რომ დაცული იქნება მისი პასუხების კონფიდენციალურობა.

[გამსაუბრებლის შესავალი განცხადების ნიმუში]

საღამო მშვიდობისა. მე გახლავართ ---------- (გვარი, სახელი). საქართველოს განათლების სამინისტროსა და საქართველო-ამერიკის ერთობლივი კომპანიის (iworld.ge) თხოვნით მსურს მოგმართოთ რამოდენიმე შეკითხვით კომპიუტერებთან, ინტერნეტის მომსახურებასთან და ჩვენს სკოლებთან დაკავშირებულ საკითხებზე. ამერიკის შეერთებული შტატების ვაჭრობისა და განვითარების სააგენტოს დახმარებით განათლების სამინისტრომ განიზრახა პროგრამის განხორციელება, რომლის საშუალებითაც საქართველოს სკოლების მოსწავლე-ახალგაზრდობას მიეცემა სკოლის საათებში კომპიუტერებით და ინტერნეტის ქსელით სარგებლობის შესაძლებლობა. ამ გამოკითხვის ძირითადი მიზანია განისაზღვროს საქართველოს მოსახლეობის დაინტერესების დონე კომერციული პროგრამისადმი, რომლის მიზანია საქართველოს საშუალო სკოლებისა და უმაღლესი სასწავლებლების პერსონალური კომპიუტერებით/ინტერნეტით აღჭურვა, და აგრეთვე ფართო საზოგადოების ფასიანი მომსახურების უზრუნველყოფა.

ამ გამოკითხვის მიზანია, აგრეთვე, განისაზღვროს ამ ამოცანების განხორციელების საუკეთესო გზა იმ რესურსებით, რომლებიც შესაძლოა ხელმისაწვდომი გახდეს განათლების სამინისტროსათვის. დაცული იქნება ყველა იმ ინფორმაციის კონფიდენციალურობა, რომელსაც თქვენთან საუბრისას მოვისმენ და თქვენი პასუხები გახდება ქვეყნის მასშტაბით ჩვენი გასაუბრების მსგავსი დაახლოებით 4,000 გასაუბრების შედეგად მიღებული კვლევის შედეგების ნაწილი. გვსურს შევიტყოთ კომპიუტერთან მუშაობის თქვენი საკუთარი გამოცდილების შესახებ და მოვისმინოთ თქვენი მოსაზრებები პერსონალურ კომპიუტერებთან და ინტერნეტის მომსახურებასთან დაკავშირებით. საქართველოს ხელისუფლების არცერთ წარმომადგენელს არ ექნება შეხება ამ კითხვარებთან და თქვენს პასუხებთან. თუკი არ გსურთ თქვენი სახელი და გვარი სადმე ფიგურირებდეს, დაე ასე იყოს – საკმარისია გაგვაფრთხილოთ და კვლევის მასალებიდან ამოვიღებთ თქვენს საიდენტიფიკაციო ინფორმაციას. თქვენი ნებართვის გარეშე არავინ დაგიკავშირდებათ და თქვენი პასუხები არასოდეს გახდება ცნობილი არცერთი სამთავრობო ორგანოს, მათ შორის განათლების სამინისტროს წარმომადგენლისათვის. თუკი გასაუბრების მსვლელობისას შეგხვდებათ გარკვეული კითხვა, რომელზედაც არ მოისურვებთ პასუხის გაცემას, შეგიძლიათ უპასუხოდ დატოვოთ. თუმცა, რაც უფრო სრული იქნება თქვენი პასუხები, მით უფრო უკეთესი იქნება კვლევის შედეგები, რაც თავის მხრივ ხელს შეუწყობს ჩვენი სკოლების კომპიუტერებით აღჭურვის შესაძლებლობას.

<u>ჯერჯერობით არ არსებობს არანაირი გარანტია იმისა, რომ ეს პროგრამა განხორციელდება საქართველოს განათლების სამინისტროს ან **I-WORLD** კომპანიის მიერ. ეს მხოლოდ წინგადადგმული პირველი ნაბიჯია.</u>

კითხვები რომ არ გებადებათ?

კითხვარი

I. ზოგადი ინფორმაცია

1. სრული სახელი, გვარი:

2. სქესი: მამრობითი —— მდედრობითი —

3. ასაკი:

ა) 16-20 ბ) 21-25

გ) 26-30 დ) 31-35

ე) 36-40 ვ) 40-45

ზ) 46-50 თ) 51-55

ი) 56-65 კ) 65-75

ლ) 75-ზე მეტი
ასაკის

4. ამჟამინდელი ოჯახური მდგომარეობა

ა) სჯობს არ ვთქვა

ბ) განქორწინებული

გ) უცოლო /გაუთხოვარი

დ) დაქორწინებული/ გათხოვილი

ე) ცალკე ვცხოვრობ

5. სრული მისამართი: _____

6. ქვემოთ ჩამოთვლილ ადგილთაგან რომელი შეესაბამება გარემოს, რომელშიც თქვენ ცხოვრობთ (მონიშნეთ თვითონ):

ა) ქალაქი; ბ) გარეუბანი; გ) სოფელი

7. ტელეფონის ნომერი: _____

8. რამდენი სატელეფონო ხაზი გაქვთ სახლში?

ა) 1 ბ) ერთზე მეტი გ) არცერთი

9. *გაქვთ ელექტრონული ფოსტის მისამართი?*

დიახ———არა——

10. *დადებითი პასუხის შემთხვევაში, გთხოვთ მიუთითოთ, სად სარგებლობთ ელექტრონულ ფოსტით?*

ა) სახლში ბ) ოფისში გ) სხვა ადგილას

11. *რამდენი წევრისაგან შედგება თქვენი ოჯახი?*

ა) 2 ან ნაკლები ბ) 3 გ) 4 დ) 5 ან მეტი

12. *16 წელზე ნაკლები ასაკის რამდენი ბავშვი გყავთ?:*

ა) არცერთი ბ) 1 გ) 2 დ) 3 ე) 4 ან მეტი

13. *გთხოვთ მიუთითოთ მათი ასაკი.* _____

14. *რა პროფესიის ხართ?* _____

15. *მიღებული განათლების ყველაზე მაღალი დონე:*

ა) საშუალო სკოლა

ბ) უმაღლესი სასწავლებელი

გ) სამეცნიერო ხარისხი (ბაკალავრზე მაღალი ხარისხი)

16. *5 წელზე ნაკლები ასაკის რამდენი ბავშვი გყავთ?*

ა) არცერთი ბ) 1 გ) 2 დ) 3 ე) 4 ან მეტი

17. *დაწყებითი კლასის მოსწავლე ბავშვთა რაოდენობა?*

ა) არცერთი ბ) 1 გ) 2 დ) 3 ე) 4 ან მეტი

18. *უმაღლესი სასწავლებლის სტუდენტთა რაოდენობა?*

ა) არცერთი ბ) 1 გ) 2 დ) 3 ე) 4 ან მეტი

19. *რამდენი ტელევიზორი გაქვთ სახლში?:*

ა) არცერთი ბ) 1 გ) 2 ან მეტი

20. *სარგებლობთ თუ არა სახლში საკაბელო ტელევიზიის არხით?*

ა) დიახ

ბ) არა, მაგრამ ჩემს საცხოვრებელ უბანში მოქმედებს ასეთი არხი.

გ) არა, ჩემს საცხოვრებელ უბანში არ მოქმედებს ასეთი არხი

21. დადებითი პასუხის შემთხვევაში გთხოვთ მიუთითოთ თვიური გადასახადი საკაბელო ტელევიზიით სარგებლობისათვის?

ა) 10 დოლარზე ნაკლები;

ბ) 10-დან 15 დოლარამდე;

გ) 15 დოლარზე მეტს

II კომპიუტერებისა და ინტერნეტის გამოყენების შესაძლებლობა

22. ოდესმე გისარგებლიათ კომპიუტერით?

ა) დიახ —— ბ) არა ——

23. გაქვთ თუ არა სახლში კომპიუტერი?

ა) დიახ —— ბ) არა ——

24. თუ გაქვთ, რამდენი?

ა) 1 ბ) ერთზე მეტი

25. კომპიუტერით სარგებლობისას რამდენად კომფორტულად გრძნობთ თავს?

ა) საკმაოდ კომფორტულად

ბ) გარკვეულწილად მოსახერხებელია

გ) არც კომფორტულად და არაკომფორტულად;

დ) საკმაოდ არაკომფორტულად;

26. ინტერნეტით სარგებლობისას რამდენად კომფორტულად გრძნობთ თავს?

ა) საკმაოდ კომფორტულად

ბ) გარკვეულწილად მოსახერხებელია

გ) არც კომფორტულად და არაკომფორტულად;

დ) საკმაოდ არაკომფორტულად;

27. რამდენად ხშირად სარგებლობენ კომპიუტერით თქვენი ოჯახის წევრები?

ა) ძალიან ხშირად ბ) საკმაოდ ხშირად გ) ხანდახან დ) არასოდეს

28. რამდენი ხანია რაც კომპიუტერით სარგებლობთ?

ა) ერთ წელზე ნაკლები ბ) 1-3 წელი გ) 3-6 წელი

29. როგორ შეაფასებდით თქვენს კომპიტერულ ცოდნას?

ა) დამწყებად ბ) გარკვეული ცოდნის მქონედ გ) ექსპერტად

30. სარგებლობს კომპიუტერით თქვენი რომელიმე ბავშვი სახლში?

ა) დიახ —— ბ) არა ——

31. რამდენი წანია?

ა) არასოდეს უსარგებლია ბ) 1 წელზე ნაკლები გ) 1-3 წელი

32. როგორ შეაფასებდით თქვენი ბავშვების კომპიუტერულ ცოდნას?

ა) არანაირი ცოდნა არ გააჩნია

ბ) ძალიან მცირე

გ) საშუალო

დ) ძალიან კარგი

33. სარგებლობთ ინტერნეტით სახლიდან?

ა) დიახ —— ბ) არა ——

34. თუ ეს ასეა, რამდენად ხშირად სარგებლობთ თქვენ ან თქვენი ოჯახის წევრები ინტერნეტით?

ა) რეგულარულად (ყოველდღე/თითქმის ყოველდღე)

ბ) საშუალოდ (კვირაში 1-3-ჯერ)

გ) იშვიათად (თვეში რამოდენიმეჯერ)

დ) ძალიან იშვიათად

35. რამდენად ხშირად სარგებლობენ თქვენი ბავშვები ინტერნეტით?

ა) ძალიან ხშირად ბ) საკმაოდ ხშირად გ) ზოგჯერ დ) არასოდეს

36. ვინ არის თქვენი ინტერნეტ პროვაიდერი? _____

37. სარგებლობთ თუ არა პრინტერით?

დიახ —— არა ——

38. ეწევით თუ არა რაიმე ბიზნეს-საქმიანობას სახლში?

დიახ —— არა ——

39. ოფისში კომპიუტერი გაქვთ თუ არა?

დიახ —— არა ——

40. სარგებლობთ თუ არა ოფისის კომპიუტერით?

დიახ —— არა ——

41. რამდენად ხშირად სარგებლობთ კომპიუტერით?

ა) ძალიან ხშირად ბ) საკმაოდ ხშირად გ) ზოგჯერ დ) არასოდეს

42. ჩართულია თუ არა კომპიუტერი ინტერნეტში?

დიახ —— არა ——

43. შეგიძენიათ ოდესმე რაიმე ინტერნეტის ქსელის გამოყენებით?

დიახ —— არა ——

44. სარგებლობთ თუ არა ინტერნეტით სხვა რომელიმე ადგილიდან?

დიახ —— არა ——

45. თუ არა, ხომ არ ისურვებდით?

დიახ —— არა ——

46. ზოგადად, კომპიუტერთან მუშაობისას რამდენად კარგად ან ცუდად გრძნობთ თავს?

ა) საერთოდ არ ვმუშაობ კომპიუტერთან;

ბ) ძალიან კარგად;

გ) საკმაოდ კარგად;

დ) კარგად;

ე) ცუდად;

ვ) ძალიან ცუდად.

47. რამდენად კმაყოფილი ხართ პერსონალური კომპიუტერის შესახებ თქვენი ამჟამინდელი ცოდნით?

ა) ძალიან კმაყოფილი ვარ – ვაკეთებ ყველაფერს რაც მსურს;

ბ) გარკვეულწილად კმაყოფილი ვარ – ვაკეთებ თითქმის ყველაფერს რაც მსურს;

გ) არც კმაყოფილი ვარ და არც უკმაყოფილო

დ) გარკვეულწილად უკმაყოფილო ვარ

ე) საკმაოდ უკმაყოფილო ვარ;

48. ოდესმე ყოფილხარ თუ არა ინტერნეტის რეგისტრირებული აბონენტი?

დიახ —— არა ——

49. ქვემოთ ჩამოთვლილი ინტერნეტის მომსახურების სახეებიდან რომლით გისარგებლიათ?

ა) ელექტრონული ფოსტა

ბ) ვებ-საიტებით სარგებლობა

გ) საძიებელი მექანიზმების გამოყენება

დ) სადისკუსიო ოთახები

ე) საგანმანათლებლო კურსები

ვ) ვიდეო ან მუსიკალური მასალებით სარგებლობა

ზ) ვიდეო-თამაშები

თ) შესყიდვის ოპერაციები ინტერნეტის საშუალებით

50. ქვემოთ ჩამოთვლილი ინტერნეტის მომსახურების სახეებიდან ძირითადად რომელია თქვენთვის ნაცნობი და გასაგები?

ა) ელექტრონული ფოსტა

ბ) ვებ-საიტებით სარგებლობა

გ) საძიებელი მექანიზმების გამოყენება

დ) სადისკუსიო ოთახები

ე) საგანმანათლებლო კურსები

ვ) ვიდეო ან მუსიკალური მასალებით სარგებლობა

ზ) ვიდეო-თამაშები

თ) შესყიდვის ოპერაციები ინტერნეტის საშუალებით

51. საერთოდ, როგორ ფიქრობთ რამდენად კარგ ან ცუდ ზეგავლენას ახდენს კომპიუტერული ტექნილოგია საზოგადოებასა და კულტურაზე?

ა) ძალიან კარგს ბ) გარკვეულწილად კარგს

გ) გარკვეულწილად ცუდს დ) ძალიან ცუდს

52. თქვენი აზრით რამდენად კარგ ან ცუდ ზეგავლენას მოახდენს კომპიუტერული ტექნილოგია საზოგადოებასა და კულტურულ ცხოვრებაზე მომავალში?

ა) ძალიან კარგს ბ) გარკვეულწილად კარგს

გ) გარკვეულწილად ცუდს დ) ძალიან ცუდს

53. გთხოვთ მიუთითოთ, თუ გაქვთ რაიმე კომენტარი ან სხვა მოსაზრება ზემოთ დასმულ შეკითხვებთან დაკავშირებით.

III კომპიუტერი და ინტერნეტი საქართველოს სკოლებში

(თუ დავუშვებთ, რომ კომპიუტერები და ინტერნეტის ქსელი ხელმისაწვდომი იქნება სკოლებში, მაშინ სკოლის საათების შემდეგ შესაძლებელია აღნიშნულმა სკოლებმა უზრუნველყონ საერთო საზოგადოებრივი მომსახურება საკომუნიკაციო ცენტრების სახით. კერძო პირების მიერ სხვადასხვა საკომუნკაციო მომსახურების გაწევისათვის გადახდილი თანხები გამოიყენება სკოლების პერსონალური კომპიუტერებით და

ინტერნეტით უფასო მომსახურებასთან დაკავშირებული ზოგიერთი ხარჯების დასაფარავად)

54. როგორ ფიქრობთ: ინტერნეტი საუკეთესო საგანმანათლებლო საშუალებას წარმოადგენს?

ა) აუცილებლად;

ბ) გარკვეულწილად

გ) არ ვიცი

დ) ნამდვილად არა

ე) გადაჭრით არა

55. თქვენი აზრით, რამდენად მნიშვნელოვანია საქართველოს სკოლის მოსწავლეთათვის კომპიუტერული განათლება, როგორც მათი განათლების ნაწილი?

ა) განსაკუთრებით მნიშვნელოვანია

ბ) ძალიან მნიშვნელოვანია

გ) საკმაოდ მნიშვნელოვანია

დ) არც ისე მნიშვნელოვანია

ე) არ არის მნიშვნელოვანი

56. თქვენი აზრით, რამდენად მნიშვნელოვანია საქართველოს სკოლის მოსწავლეთათვის ინტერნეტით სარგებლობა, როგორც მათი განათლების დამხმარე საშუალება?

ა) განსაკუთრებით მნიშვნელოვანია

ბ) ძალიან მნიშვნელოვანია

გ) საკმაოდ მნიშვნელოვანია

დ) არც ისე მნიშვნელოვანია

ე) არ არის მნიშვნელოვანი

57. თქვენი აზრით, რომელ საგანმანათლებლო ეტაპზე უნდა დაიწყოს კომპიუტერული / ინტერნეტის სწავლება საქართველოს სკოლებში?

ა) შეძლებისდაგვარად ადრე

ბ) დაწყებითი კლასებიდან

გ) უმაღლეს სასწავლებლებში

58. ფიქრობთ, რომ სკოლის მასწავლებელები შეძლებენ შეასწავლონ ბავშვებს კომპიუტერთან მუშაობა მიუხედავად იმისა, რომ მათ შესაძლოა არ ჰქონდეთ გავლილი კვალიფიკაციის ამაღლების კურსები?

დიახ —— არა ——

59. თქვენი აზრით, რამდენად მნიშვნელოვანია რომ სკოლები მხოლოდ საუკეთესო და უახლესი კომპიუტერული ტექნიკით იყოს აღჭურვილი?

ა) განსაკუთრებით მნიშვნელოვანია

ბ) ძალიან მნიშვნელოვანია

გ) არც ისე მნიშვნელოვანია

დ) არ არის მნიშვნელოვანი, თუ აქვთ მუშა მდგომარეობაში მყოფი კომპიუტერები

60. იმის გათვალისწინებით, რომ შესაძლოა არსებული ფულადი სახსრები შეზღუდული იყოს, როგორ ფიქრობთ, რა უფრო მნიშვნელოვანია - ბევრი კომპიუტერების შეძენა დაბალ ფასებში თუ გაცილებით ნაკლები რაოდენობის, მაგრამ უახლესი კომპიუტერების შეძენა?

ა) ბევრი და დაბალ ფასად ბ) ცოტა, მაგრამ უახლესი

61. იმის გათვალისწინებით, რომ ყველა სკოლას ერთნაირად უნდა მივუდგეთ, წინააღმდეგი ხომ არ იქნებით თუ შეიძენილ იქნება განახლებული (უკვე გამოყენებული), მაგრამ ძალიან კარგ სამუშაო მდგომარეობაში მყოფი კომპიუტერები, რათა შესაძლებელი გახდეს უფრო მეტი საკლასო ოთახების აღჭურვა?

ა) დიახ —— ბ) არა ——

62. კომპიუტერებისა და ინტერნეტის თვალსაზრისით, როგორ ფიქრობთ, რა უფრო მნიშვნელოვანია ქართველ ბავშვთა მომავლისათვის? (მნიშვნელობის მიხედვით)

ა) ვებ-საითებით სარგებლობა;

ბ) სპეციფიური ინფორმაციის მოძიება;

გ) ელექტრონული ფოსტა;

დ) სასაუბრო ოთახები და სადისკუსიო ჯგუფები;

ე) კომპიუტერული მომზადება;

ვ) ბიზნეს-საქმიანობა ინტერნეტის საშუალებით;

ზ) შესყიდვის ოპერაციები ინტერნეტის საშუალებით;

თ) მუსიკალური და ვიდეო მასალებით სარგებლობა;

ი) კომპიუტერის საგანმანათლებლო კურსები

63. თქვენი აზრით, საერთოდ, რამდენად მნიშვნელოვანი როლი ენდა დაიკავოს კომპიუტერმა და ინტერნეტმა ქართველ ბავშვთა ცხოვრებაში?

ა) განსაკუთრებით მნიშვნელოვანი

ბ) ძალიან მნიშვნელოვანი

გ) არც ისე მნიშვნელოვანი

დ) უმნიშვნელო

64. ფიქრობთ, რომ კომპიუტერით და ინტერენეტით სარგებლობისათვის მოსამზადებელი კურსების უზრუნველყოფა საქართველოს მთავრობის პასუხისმგებლობაში უნდა შედიოდეს?

ა) აბსოლუტურად ვეთანხმები ამ აზრს

ბ) ვეთანხმები

გ) არ ვიცი

დ) არ ვეთანხმები

ე) არცერთ შემთხვევაში არ ვეთანხმები

65. როგორ ფიქრობთ: კომპიუტერული და ინტერენეტით სარგებლობისათვის შესაბამისი მოსამზადებელი კურსების უზრუნველყოფის საკითხს მნიშვნელოვანი პრიორიტეტი უნდა მიანიჭოს საქართველოს მთავრობამ?

ა) აბსოლუტურად ვეთანხმები ამ აზრს

ბ) ვეთანხმები

გ) არ ვიცი

დ) არ ვეთანხმები

ე) არცერთ შემთხვევაში არ ვეთანხმები

66. სახელმწიფო შემოსავლებში დამატებითი სახსრების გამოჩენის შემთხვევაში, ფიქრობთ, რომ ამგვარი დამატებითი სახსრები გამოყენებულ უნდა იქნას კომპიუტერების შეძენისა და სკოლების ინტერნეტის ქსელში ჩართვის მიზნით?

ა) აბსოლუტურად ვეთანხმები

ბ) ვეთანხმები

გ) არ ვიცი

დ) არ ვეთანხმები

ე) აბსოლუტურად არ ვეთანხმები

IV საზოგადოებრივი საკომუნიკაციო ცენტრები

67. ისარგებლებდით თუ არა თქვენს სახლთან ახლოს მდებარე ინტერნეტ/საკომუნიკაციო ცენტრით?

ა) აუცილებლად

ბ) შესაძლოა

გ) ხანდახან

დ) არც ერთ შემთხვევაში

68. ალნიშნული ცენტრების რა მომსახურებით ისარგებლებდით?

ა) ინტერნეტის მომსახურებით

ბ) ფაქსის გასაგზავნად

გ) ტექსტის დასაბეჭდად

დ) კომპიუტერული კურსებით

ე) ინტერნეტის საშუალებით შესყიდვის ოპერაციებისათვის

69. გადაიხდით ალნიშნული რომელიმე მომსახურების საფასურს, თუ გეცოდინებათ, რომ ამ გზით შემოსული სახსრები მოხმარდება სკოლებში უფასო კომპიუტერული და ინტერნეტის მომსახურების უზრუნველყოფას? რომელი მათგანის საფასურს გადაიხდიდით?

ა) ინტერნეტის

ბ) ფაქსის

გ) ტექსტის ბეჭდვის

დ) კომპიუტერული კურსების

ე) ინტერნეტის საშუალებით შესყიდვის ოპერაციების

ვ) საგანმანათლებლო კურსების

ზ) არ გადავიხდი

70. შეიძენდით ინტერნეტით შემოთავაზებულ პროდუქციას თუ ეს შესაძლებელი იქნებოდა საკომუნიკაციო ცენტრის დახმარებით?

ა) აუცილებლად

ბ) შესაძლოა

გ) ალბათ

დ) ალბათ არა

71. თქვენი აზრით საშუალოდ რამდენს გადაიხდის ქართველი ადამიანი კომპიუტერით/ინტერნეტით სარგებლობისათვის?

ა) 2 ლარს საათში

ბ) 1.5 ლარს საათში

გ) 1 ლარს საათში

დ) საერთოდ არ გადაიხდის

72. რამდენს გადაიხდიდით ინტერნეტით და/ან კომპიუტერით სარგებლობისათვის საათში? (გთხოვთ გაბსოვდეთ, რომ ყველა გადასახადი მოხმარდება სკოლების უფასო კომპიუტერებით აღჭურვისა და ინტერნეტით უფასო მომსახურების ხარჯების ნაწილობრივ დაფარვას)

ა) 2 ლარს საათში

ბ) 1.5 ლარს საათში

გ) 1 ლარს საათში

დ) საერთოდ არ გადაიხდიდა

73. გადაიხდიდით თუ არა საკომუნიკაციო ცენტრში საშსახურისათვის მზადების ან ინტერნეტის ქსელით სამუშაო ვაკანსიის ძიების მომსახურების საფასურს, თუკი თქვენი აზრით ეს დაგეხმარებათ უკეთესი სამუშაოს მოძებნაში?

ა) აუცილებლად

ბ) შესაძლოა

გ) არა

74. თქვენი აზრით, საქართველოს მთავრობამაც უნდა შეიტანოს წვლილი ამ დამატებითი ხარჯების დაფარვაში? - რაც საზოგადოების ახალგაზრდა წევრებს მისცემს სკოლებში კომპიუტერებისა და ინტერნეტის ქსელის გამოყენების შესაძლებლობას.

ა) აუცილებლად

ბ) შესაძლოა

გ) არა

დ) ალბათ ნაწილობრივ

75. ფიქრობთ თუ არა, რომ კომპიუტერებისა და ინტერნეტის ქსელის ფართო გამოყენება სამხრეთ კავკასიის ტერიტორიაზე მოიტანს რეგიონში მშვიდობას და ურთიერთგაგებას?

ა) აუცილებლად

ბ) შესაძლოა

გ) არა

დ) ნამდვილად არა

76. მხარს დაუჭერთ გაერთიანებული ერების ორგანიზაციის (ან სხვა საერთაშორისო ორგანიზაციის) მიერ დაფინანსებულ პროგრამას, რომელიც უზრუნველყოფს კომპიუტერული და ინტერნეტის მომსახურების უზრუნველყოფას სამხრეთ კავკასიის ქვეყნებში?

ა) აუცილებლად

ბ) შესაძლოა

გ) არა

დ) ნამდვილად არა

თუ საჭიროდ ჩათვლით, გთხოვთ მოგვაწოდოთ დამატებითი ინფორმაცია

დიდი მადლობა ყურადღებისათვის.

Грузия в масштабе всей страны.

Обозрение рынка компьютера и интернета

Вопросник

iworld. ge
август, 2000

Образец вступительного заявления, ведущего собеседование

Добрый вечер. Моя фамилия и имя .....

По просьбе министерства просвещения Грузии и совместной Компании Грузии-Америки, желаю обратиться к Вам с несколькими вопросами, связанными с компьютерами, обслуживанием интернета и нашими школами. С помощью агентства торговли и развития Соединенных Штатов Америки, министерство просвещения задумало осуществление программы, с помощью которой учащейся молодежи Грузии предоставится возможность использования в часы школы Компьютерами и сетью интернета. Главная цель этого опроса определить уровень заинтересованности населения Грузии к коммерческой программе, цель которой снарядить средние школы и высшие учебные заведения Грузии персональными компьютерами-интернетом, а также обеспечение широкого общества платным обслуживанием.

Целью этого опроса также является определение лучшего пути осуществления данных задач теми ресурсами, которыми возможны стать доступными для министерства просвещения. Будет соблюдена конфиденциальность всей той информации, которую я выслушаю в беседе с Вами и Ваши ответы в масштабе всей страны станут частью итогов исследования в результате 4,000 собеседований. Желаем узнать о Вашем опыте в работе с Компьютерами и выслушать Ваше мнение в связи с обслуживанием персональных Компьютеров и интернета. Ваши вопросники и ответы не будут иметь соприкосновения ни с одним представителем власти Грузии. Если не желаете, чтобы где-нибудь не фигурировали Ваши имя и фамилия, пусть будет так - достаточно предупредить нас и мы из материалов исследования изымем) Вашу идентификационную информацию. Без Вашего разрешения никто с Вами не свяжется и Ваши ответы никогда не станут известными ни одному органу власти, в том числе представителю министерства просвещения. Если в ходе собеседования встретите определенный вопрос, на который не пожелаете ответить, можете оставить без ответа. Хотя, чем будут полнее Ваши ответы, тем будут лучшими итоги исследования, что в свою очередь будет способствовать возможность снаряжать Наши школы Компьютерами.

Пока не существует никакой гарантии того, что эта программа осуществится министерством просвещения Грузии или компанией I-WORLD. Это только первый шаг вперед.

Не возникают ли у Вас вопросы?

Основные указания:

1. Просим учесть то обстоятельство, что некоторые респоденты не проявят дружеские отношения. Ни в одном случае не теряйте спокойствия; помните, что для этой деятельности Вы получаете соответствующее вознаграждение, а респодент - ничего.

2. Просим энергично и с максимальным желанием приступить к делу. Это - достаточно значительный проект, который принесет Грузии большую пользу. Старайтесь, чтобы и респодентом поделиться этим мнением и его внимание заострите на тот факт, что он является активным членом данного процесса.

3. Старайтесь, чтобы респодент чувствовал себя свободно.

4. Представьте ему себя. Укажите о Вашей другой деятельности и объясните цель собеседования.

5. Подчеркните то обстоятельство, что полностью будет соблюдена конфиденциальность его ответов.

6. Создавайте респоденту условия откровенной беседы.

7. Дайте время для обдумывания вопроса.

8. Не начинайте беседу о политике.

9. Беседуйте отчетливо - на простом понятном языке.

10. Будьте терпеливыми.

11. Собеседование заканчивайте дружественным тоном.

12. Спросите, не дополнил бы что-нибудь разбираемый на собеседовании вопросам.

13. Еще раз подтвердите, что будет соблюдена конфиденциальность его ответов.

Вопросник

I. Общая информация

1. Полное имя, фамилия:

2. Род: мужской ——— женский ———

3. Возраст:

а) 16-20 б) 21-25

в) 26-30 г) 31-35

д) 36-40 е) 40-45

ж) 46-50 з) 51-55

и) 56-65 к) 65-75

л) 75 и старше

4. Семейное положение на данный момент:

а) лучше не говорить

б) разведенный

в) неженатый (незамужняя)

г) женатый (замужняя)

д) живу отдельно

5. Полный адрес: _____

6. Из нижеперечисленных мест, которое соответствует среде, в которой Вы живете (отметьте сами):

а) город; б) окраина в) село

7. Номер телефона: _____

8. Сколько телефонных линий есть дома?

а) 1 б) больше одной в) ни одной

а) меньше 10 долларов б) до 10-15 долл. в) больше 15 долл.

II. Возможность использования компьютеров и интернета

22. Когда-нибудь пользовались компьютером?

а) да _____ б) нет _____

23. Имеете ли в квартире компьютер?

а) да _____ б) нет _____

24. Если имеете, то сколько?

а) 1 б) больше одного

25. Насколько комфортабельно чувствуете себя при пользовании компьютером?

а) достаточно комфортабельно

б) в определенной степени удобно

в) и комфортабельно и не комфортабельно

г) достаточно некомфортабельно

26. При пользовании интернетом насколько комфортно чувствуете себя?

а) достаточно комфортабельно

б) в определенной степени удобно

в) не комфортабельно

г) достаточно не комфортабельно

27. Насколько часто пользуются компьютером члены Вашей семьи?

а) очень часто б) достаточно часто в) иногда д) никогда

28. Сколько времени Вы пользуетесь компьютером?

а меньше одного года б) 1-3 года

29. Как Вы оценили бы свое знание компьютера?

а) начинающий б) имеющий определенное знание в) эксперт

30. Пользуется ли компьютером Ваш ребенок?

а) да _____ б) нет _____

31. Сколько времени он пользуется компьютером?

а) никогда не пользовался б) меньше 1 года в) 1-3 года

32. Как оценили бы Вы компьютерные знания Ваших детей?

а) никаких знаний б) очень низкие в) средние г) очень хорошие

33. Из дома пользуетесь ли интернетом?

а) да _____ б) нет _____

34. Если это так, то насколько часто пользуетесь Вы и члены Вашей семьи интернетом?

а) регулярно (ежедневно, почти ежедневно)

б) нерегулярно (в неделю 1-3 раза)

в) изредко (в месяц несколько раз)

г) очень редко

35. Насколько часто пользуются Ваши дети интернетом?

а) очень часто б) достаточно часто в) иногда г) никогда

36. Кто Ваш интернет провайдер? _____

37. Пользуетесь ли принтером?

да _____ нет _____

38. Занимаетесь ли бизнес-деятельностью дома?

да _____ нет _____

39. Имеете ли в офисе компьютер?

да _____ нет _____

40. Пользуетесь ли офисным компьютером?

да _____ нет _____

41. Насколько часто пользуетесь компьютером?

а) очень часто б) достаточно часто в) иногда г) никогда

42. Включен ли компьютер в интернет?

да _____ нет _____

43. Что-нибудь приобрели использованием сети интернета?

да _____ нет _____

44. С другого места пользуетесь ли интернетом?

да _____ нет _____

45. Если нет, не пожелали бы?

да _____ нет _____

46. В общем, в работе с компьютером насколько хорошо или плохо чувствуете себя?

а) вообще не работаю с компьютером

б) очень хорошо

в) достаточно хорошо

г) хорошо

д) плохо

е) очень плохо

47. Насколько Вы довольны Вашим теперешним знанием персонального компьютера?

а) очень доволен, делаю то, что желаю

б) доволен, делаю почти все, что желаю

в) недоволен

г) недоволен

д) достаточно недоволен

48. Когда-нибудь Вы были регистрированным абонентом интернета?

да _____ нет _____

49. Какими пользовались нижеперечисленными видами обслуживания интернета?

а) электронная почта

б) пользование веб-сайтами

в) использование указательных механизмов

д) просветительные курсы

е) пользование видео или музыкальными материалами

ж) видео-игры

з) закупочные операции посредством интернета

50. Из нижеперечисленных видов интернетного обслуживания в основном какое для Вас известное и понятное?

а) электронная почта

б) пользование вайт-сайтами

в) использование указательных механизмов

г) дискуссионные комнаты

д) просветительные курсы

е) пользование видео или музыкальными материалами

ж) видео-игры

з) закупочные операции посредством интернета

51. Вообще, как Вы думаете, насколько хорошо или плохо оказывает влияние компьютерная технология на общество и культуру?

а) очень хорошее б) в определенной мере хорошее

в) в определенной мере плохое г) очень плохое

52. По Вашему мнению, насколько хорошее или плохое влияние окажет в будущем компьютерная технология на общество и культуру?

а) очень хорошее б) в определенной мере хорошее

в) в определенной мере плохое г) очень плохое

53. Просим указать, если имеете какой-нибудь комментарий или другое соображение в связи с вышепоставленными вопросами.

III. Компьютер и интернет в школах Грузии

(Допустим, что компьютеры и сеть интернета будут доступны в школах, тогда после школьных занятий возможно ли, чтобы указанные школы обеспечили общее общественное обслуживание в лице коммуникационных центров.

Уплаченные суммы за различное коммуникационное обслуживание частными лицами будут использованы за погашение некоторых затрат, связанных с бесплатным обслуживанием персональными компьютерами и интернетом).

54. Как думаете: интернет является лучшим просветительным средством?

а) обязательно

б) в определенной мере

в) не знаю

г) действительно нет

д) решительно нет

55. По Вашему мнению, насколько важным является для учащихся школ Грузии компьютерное просвещение, как частица их просвещения?

а) особенно важным

б) очень важным

в) достаточно важным

г) не таким важным

д) неважным

56. По Вашему мнению насколько важно для учащихся школ Грузии пользование интернетом, как дополнительное средство их просвещения?

а) особенно важно

б) очень важно

в) достаточно важно

г) не таким важно

д) неважно

57. По Вашему мнению, на каком образовательном этапе надо начинать обучение компьютерным интернетом в школах Грузии?

а) по возможности раньше

б) с начальных классов

в) в высших учебных заведениях

58. Думаете ли, что учителя школ смогут обучить детей работе с компьютером несмотря на то, что они, возможно, не прошли курсы повышения квалификации?

да _____ нет _____

59. По Вашему мнению, насколько важно, что школы будут снаряжены новейшей компьютерной техникой?

а) особенно важно

б) очень важно

в) не так важно

г) неважно, если имеют компьютеры в рабочем положении

60. Учитывая то, что возможно существующие денежные средства будут ограничены, как думаете, что важнее - приобретение многих компьютеров по низким

ценам, или приобретение в значительно меньшем количестве, но новейших компьютеров?

а) много по низкой цене б) мало, но новейших

61. Учитывая то, что каждой школе мы одинаково должны подходить, не против ли Вы, если будут приобретены обновленные (уже использованные) компьютеры в очень хорошем рабочем положении, чтобы возможно стало снарядить больше классных комнат?

а) да _____ б) нет _____

62. С точки зрения компьютеров и интернета, как думаете, что важнее для будущего грузинских детей?

а) пользование веб-сайтами

б) отыскание специфической информации

в) электронная почта

г) разговорные комнаты и дискуссионные группы

д) компьютерная подготовка

е) бизнес-деятельность посредством интернета

ж) закупочные операции посредством интернета

з) пользование музыкальными и видео материалами

и) просветительные курсы компьютера

63. По Вашему мнению, вообще, насколько значительную роль должен занять компьютер и интернет в жизни грузинских детей?

а) особенно важное

б) очень важное

в) не такое значительное

г) незначительное

64. Думаете, что обеспечение подготовительных курсов за пользование компьютерами и интернетом должно входить в ответственность грузинского правительства?

а) абсолютно согласен с этим мнением

б) согласен

в) не знаю

г) не согласен

д) не согласен ни с одним мнением

65. Как думаете, вопросу обеспечения соответствующих подготовительных курсов за пользование компьютерами и интернетом грузинское правительство должно присвоить особенный приоритет?

а) абсолютно согласен с этим мнением

б) согласен

в) не знаю

г) не согласен

д) не согласен ни с одним мнением

66. В случае появления дополнительных средств в государственных доходах, думаете ли, что подобные дополнительные средства должны быть использованы с целью приобретения компьютеров и включения сети интернета школ?

а) абсолютно согласен

б) согласен

в) не знаю

г) не согласен

д) абсолютно не согласен

IV. Общественные коммуникационные центры

67. Использовали ли Вы интернет-коммуникационным центром, расположенном по-близости с Вашим домом?

а) обязательно

б) возможно

в) иногда

г) ни в одном случае

68. Каким обслуживанием указанных центров пользовались бы?

а) обслуживанием интернета

б) для отправки факса

в) для печатания текстов

г) компьютерными курсами

д) посредством интернета для закупочных операций

69. Заплатите ли цену за какое-нибудь обслуживание, если будете знать, что по-лученные этим путем средства будут использованы для обеспечения бесплатного компьютерного и интернетного обслуживания? Из них за что заплатили бы?

а) за интернет

б) за факс

в) за печатание текста

г) за компьютерные курсы

д) за закупочные операции посредством интернета

е) за просветительные курсы

ж) не заплачу

70. Приобрели бы предложенную продукцию интернета, если это было бы возможно с помощью коммуникационных центров?

а) обязательно

б) возможно

в) по-видимому

г) может нет

71. По Вашему мнению, сколько заплатит грузин за пользование компьютера (интернета) ?

а) 2 лари за час

б) 1,5 лари за час

в) 1 лар за час

г) вообще не заплатит

72. Сколько Вы заплатили бы за пользование интернета и компьютера за один час? (просим помнить, что все налоги будут употреблены для бесплатного снаряжения компьютеров школ и частичного погашения затрат обслуживания интернета?

а) 2 лари за час

б) 1,5 лари за час

в) 1 лари за час

г) вообще не заплатит

73. Заплатили бы для подготовки службы в коммуникационном центре за поиски сетью интернета цену поиска рабочей вакансии, если по Вашему мнению поможет Вам в поиске лучшей работы?

а) обязательно

б) возможно

в) нет

74. По Вашему мнению, и грузинское правительство должно внести свой вклад в погашение этих дополнительных затрат?, что дает возможность молодым членам общества пользоваться сетью компьютеров и интернета?

а) обязательно

б) возможно

в) нет

г) возможно частично

75. Думаете ли, что широкое использование компьютеров и сети интернета на территории Южного Кавказа принесет мир и взаимопонимание?

а) обязательно

б) возможно

в) нет

д) действительно нет

76. Поддержите ли финансированную программу Организации Объединенных Наций (или другой международной организации), которая обеспечит обслуживание компьютеров и интернета в странах Южного Кавказа?

а) обязательно

б) возможно

в) нет

д) действительно нет

Если сочтете нужным, просим подать дополнительную информацию

Большое спасибо за внимание!

THE INFORMATION TECHNOLOGY INDUSTRY IN GEORGIA

NOVEMBER 2000

AUTHOR: ALEXANDER LOTUASHVILI, BISNIS REPRESENTATIVE, TBILISI, GEORGIA

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Here is a quick look at some statistics on the information technology industry in Georgia.

Statistics (2000)

1. Software market (annual turnover - over US$1 million)
    a) The biggest software manufacturing companies are: ALTA Software LTD, GSS, INFO, ORIS Co, and Communic Enterprise).
    b) The most frequently used programming languages are: Delphi, C++, and Java.
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    ALTA Software - OPEN DAY, BANK 2000 SQL, BANK-CLIENT, LOANS, and SECURITY COMMUNICATE.
    GSS - SUPERFIN 6.0 (financial software)
    INFO - INFO - BUGHALTER. (accounting)
    ORIS - BANK-NET, ORIS BUGHALTERIA (banking and finance)

2. System Integration - Assembling Personal Computers (PC) (annual turnover over US$6 million)
    Number of companies - 50
    Total market volume - 500 PC's per month
    PC's sold by Central Processing Unit (CPU) - (45%) Celeron 466-566, (25%) PIII-500-600, (20%) PIII - 600-933, (10%) AMD ATHLON.
    Biggest companies are: ALTA Computers, Orient Logic, Mantex, Yversy, Complex Pro, NDZ, and Flamingo.

3. Projecting (Network Projecting and installation, Fiber-Optic Technologies, IP-Communications) - (Annual turnover – US$2 million)
   The leaders in this market are: ALTA Communications Ltd. and COMPY Ltd.
   Number of projects with more than 100 networks per year - 40

4. Hardware Distribution (Annual turnover - over US$16 million)
   The leaders: ALTA Impex Ltd, Yversy, and Complex Pro.
   The most popular brands are: HP, Compaq, Dell, APC, Epson, Oki, 3Com, Intel, Cisco, Seagate, Quantum, Viewsonic, and Canon.

RETAIL TRADE

The majority of the above companies are in retail trade - including the software producing companies. Computers of various modifications assembled in Georgia are the most popular products. The prices for these computers are far below the price of a computer with an internationally known brand name. Nevertheless, the quality of the locally assembled computers absolutely corresponds to the needs of the local consumer.

DISTRIBUTION

The distribution channels for the imported computers is not well developed in Georgia. This is due to higher custom's duties for trading companies than for end-users. Despite this situation, one still finds a reasonable number of companies which trade in imported UPS, monitors, computer cases, and other related accessories.

PROJECT BUSINESS

In Georgia, the largest computer purchasers are international donor organizations, such as U.S. Agency for International Development, the World Bank, etc. In most cases, these organizations acquire large numbers of computers and related accessories for various governmental and non-governmental bodies. In accordance with the large number and variety of trading companies the purchaser must make a complex decision regarding the modification of computers, their delivery, installation, etc. The total sum generated by such projects constitutes a big share of the turnover capital generated by the entire information technology sector.

REPAIR SERVICE

Regarding repair services, Georgian companies can be divided into two categories. The first category includes companies which specialize their business exclusively on the repair of computers and accessories. The second category includes companies that repair computers as only a part of their business.
The following authorized computer service centers conduct their activities in Georgia:

- Hewlett-Packard

- Compaq
- APC
- DELL - provides service exclusively for their clients
- Canon - provides service exclusively for their clients
- Xerox

Various companies provide network installation. Most often when a client purchases a computer, the dealer provides its installation free of charge. However, there are several companies that only do installation work.

MARKET OVERVIEW

OFFICIAL PARTNERS OF COMPUTER MANUFACTURING COMPANIES

	DELL	HP	Compaq	IBM	APC	3 COM	Apple	Cisco	Intel	Canon	Xerox	Toshiba	Gateway
Alta					X	X							
UGT			X										
Compus													X
Ina	X												
Info			X										
G&G				X									
Orient Logic	X	X			X					X			
Green network							X	X					
Esabi		X									X		
Complex Pro												X	
Sanet						X		X					
Ark									X				
DKMD										X			

OFFICIAL SERVICE CENTERS OF MANUFACTURING COMPANIES

	DELL	HP	COMPAQ	IBM	APC	APPLE	CANON	XEROX	GATEWAY
UGT			X						
INA	X								
INFO			X						

ORIENT LOGIC	X	X			X		X		
ESABI		X						X	
DKMD							X		

Currently, none of the international manufacturing companies have opened representative offices in Georgia.

VARIETY OF SUPPLIERS

The Georgian reselling companies most frequently purchase merchandise through the following ways:

a) Through official representative offices of manufacturing companies.
b) Through official channels
c) Through European and other international distributors
d) From Dubai - UAE (electronics are cheap in this region)
e) From Russia

It should be mentioned that a couple of years ago the biggest supply of computers and accessories came into Georgia from Russia. This was due to a bilateral trade agreement between Georgia and the Commonwealth of Independent States (CIS). There is a low custom's clearance fee on goods imported from CIS countries.

CUSTOMERS-SEGMENTS OF THE MARKET

The main segments of the market are:

- The governmental bodies which are financed by international organizations - donors.
- Big private business
- Banks
- SME
- Private sector

Approximately 80% of acquisitions belong to first three sectors.

In order to identify the demand for computers and specialists in the field of information technology, the Georgian Institute of Social Researches conducted a study of 150 companies involved in various activities and which use computers as a main tool for their proper functioning. The study revealed the following statistical information:

VOLUME OF COMPUTERS

Overall, approximately 1222 computers are used in 150 organizations - average 8 computers per organization.

The most frequently used models are:

1. Pentium - 58.30%
2. Pentium II - 27.30%
3. I 486 - 8.92%
4. I 386 - 2.47%
5. I 286 - 1.41%
6. Other - 1.59%

The option "Other" includes - Pentium III, Apple GI - 3, RS 6000.

NETWORK

Approximately 56.7% of the organizations have their computers connected to a network. 37.6% of these types of organizations have nets of the "Client Server" type. The 54.5% of organizations that do not have their computers connected to a net, are planning to establish a net of communication in the near future.

INTERNET

Approximately 78% of 150 organizations studied have access to the Internet, these organizations are served by the following network providers:

- Sanet - 54.7%
- ICN - 15.4%
- GeoNet - 12.0%
- Global 1 - 8.5%
- Iberia Pack - 4.3%
- MMC - 3.4%
- Kheta - 1.7%

15.3% of the 150 organizations studied use the Internet to advertise their company.

Among these:

- Have their own Web-site - 73.9%
- Place a Banner - 8.7%
- Placed information regarding their Web-Site in various searching systems - 26.1%
- Placed Links of their Web-Sites on other sites - 17.4%
- Advertise themselves via e-mail.

63.2 % of the companies received positive results from their on-line advertisements.

75.0 % of the organizations that do not have access to Internet are planning to get it in the near future.

The main reasons for not being connected to Internet are:

- Shortage of money - 21.2%
- No need at present moment - 54.5%
- No need at all - 15.2%
- Other - 9.1%

COMPUTER SPECIALISTS

Approximately 1683 individuals work with computer systems in the 150-researched entities. Accordingly it means that on average 11 employees per organization work with computers. Among the above-mentioned 1683 employees approximately - 84.2% (1417) were users and the rest - 15.8% (266) were IT specialists. On average, each organization employs 9 users and 2 IT specialists.

The users are required to be able to work with the following programs:

- MS -Windows 95.3%
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It should be mentioned that such programs as: Oracle, Delphi and MS - SQL were quite rarely mentioned.

In order to get hired on a certain job IT Specialists are required to present:

- International certificate 1.0%
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- Some other document 1.0%
- None of the documents are required 76.9%

ESTABLISHING A BUSINESS

Legal forms of business

In order to conduct business activity in Georgia, it is essential to register a company as a juridical person. The registration could be done either by foreign residents or local citizens. The most frequently used legal forms of organizations involved in IT field are Limited-Liability and Joint-Stock companies.

Custom taxes

The custom's tax for PC is 12%. Copying machines and other office equipment are taxed by 12%, plus 20% VAT.

The organizations that import computers for their own use are taxed 5% (for copying machines and other office equipment there is an additional 20% value added tax (VAT).

All goods imported to Georgia which exceed $2500 are subject to pre-shipment inspection by ITS (Intertek Testing services). The inspection cost is paid by the importer and constitutes $260 or 1.09% of the value of the goods - whichever is greater.

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COMPUS

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Fax: (995 32) 943175

e-mail: orient.logic@caucasus.net

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Fax: (995 32) 387552
e-mail: arc@orioni.com.ge

ESABI

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Tel: (995 32) 98 3631
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on screen, "but I spend about three or four hours a day here. I'm in constant communication with my teachers. I can do computer experiments and see how things really work."

Several workstations up from Ruslan, Artyom Shuvayev, a freshman, also plans to be a physicist, but today he has spent several hours working with a multimedia textbook on Russian history. On his screen is a description of the mid-19th-century judicial reform carried out in czarist Russia.

Artyom was in Tomsk recently on a field trip with his classmates, meant to instill school spirit. After two years studying in Prokopyevsk, physics students transfer to the main campus in Tomsk, graduating after an additional three years.

"Here I will have time to grow up for two years," said the studious, strapping Artyom, who is already mapping out his future. "They say those who go to Tomsk from far away don't have time to study."

All of this is good news for Prokopyevsk, where unemployment is over 20 percent, and the population of nearly 300,000 has too few distractions and too many problems.

Ten years ago the town was a hotbed of demonstrations that helped bring down Communism. Famous for the best coal in the Kuzbass, as the region is called, Prokopyevsk has made the news more in recent years for methane explosions at its failing mines and strikes by irate workers who have blockaded local junctions of the Trans-Siberian Railroad. Dozens of teenage boys in the area have been disabled and even died from electric shocks after attempting to steal power lines or transformers to sell as scrap metal.

Like Ruslan and Artyom, most of the 530 students studying physics, law, history and economics at the Prokopyevsk program are the children of miners or blue-collar workers. It costs about $280 a year to study in Prokopyevsk, cheaper than going straight to Tomsk, the oldest classical university in Siberia, where scholarship spots are highly competitive and living and travel expenses add up.

"They will mostly be first-generation intelligentsia," said Dmitry Voronin, the rector of the affiliate. Mr. Voronin, who keeps a samovar and a lemon tree in his office, is a great believer in computer technology i